The Journal
of the
South Carolina Medical Association

VOLUME XLIV June, 1948 NUMBER 6

President's Address

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A presidential address by custom, is an attempt to present and comment upon the "state of the Union." Anyone who would set out in the field of medicine to pursue such a course in this the year 1948 would indeed be brave. While it is true that each generation and age regards its particular problems as critical, those of us who are present today are, by common consent, in the most extraordinary age the world has ever known. For the first time in his career, man has produced a Frankenstein capable of instantly destroying the entire race, and leaving this planet bare of human life to begin anew the evolution of a dominant species. The idea is staggering and its implications awe-inspiring. Perhaps the tragic and somber thoughts engendered by the contemplation of our danger will sober us into a realization of the necessity of developing our emotional control as we have developed our intellectual power. The present national news and the prevalent world tension does not as yet give much promise of that happy solution. But we shall continue to hope because otherwise there is little light. Some one has noted that a French diarist of one hundred years ago quotes the scientist Berthelet as making this startling prophecy, "In a hundred years man with his ingenious mind will divide the atom, and shortly thereafter God will come down from Heaven, jingling his keys and saying, "All right, gentlemen, it's just about closing time." Let us fervently trust that the latter part of this prophecy does not prove as accurate as the first.

Our meeting commemorates one hundred years of our organized life. I shall not attempt to summarize the events of those years. Our much esteemed colleague, Joe Waring, who has done yeoman's work in preparation for this celebration, has performed a magnificient service to our Association by writing a history of these one hundred years of progress. You have received or will receive a copy of this accurate and scholarly work.

The problems of 1848 were different from our problems. The practice of medicine was concerned mainly with the relief of symptoms, in pioneer communities. The corner stones of our present science of medicine were virtually unknown. During these past one hundred years were to come the discoveries of cellular pathology, microscopic anatomy and pathology, bio-chemistry and physiology, and, most important of all, bacteriology. This last, combined with anesthesia, gave rise to aseptic surgery, and the ability to explore all parts of the human body with comparative safety. Finally the last few decades have produced discoveries which have led to a knowledge of hormones, with an insight into the nervous and chemical integration of the body. We are now beginning to grasp the concept of the body as a whole, and to understand how, as some one has put it, "fear and resentment can produce ulcers."

Running on parallel tracks, as it were, with this progress in the scientific knowledge of disease, has been the changes of the social aspect of medical practice. Many of us would hesitate to use the word "advances" in this particular aspect of our review.

The doctor of 1848 and his patient were singularly "on their own." Hospitals were unknown, except as poor houses, and pest houses. Clinics, laboratory help, auxillary aids in diagnosis were years in the future. The concept of community, or national responsibility was dim indeed. Boards of health, if existant at all, consisted of committees without funds or plans of procedure. There was no state aid, and federal aid was in the dim and distant future. The high cost of medical care had not as yet become a problem. Let us visualize a South Carolina physician of 1848 who confronted a problem in the baffling illness of the daughter of a prosperous planter. Let us say the doctor lived in Darlington. He would very probably have consulted the learned and scholarly Dr. Moultrie, dean of the faculty of medicine at the Medical College of South Carolina. Non-plussed, that gentleman might well have suggested America's current leader in clinical medicine, William Wood Gerhard of Philadelphia. A sea-voyage finally brought our patient to Philadelphia, the center of American Medicine. In a short half hour, this distinguished gentlemen could

have exhausted all modes of inquiry. Besides his own senses, the worthy consultant had one crude help only. He could inspect, and taste, the urine. In 1848, a fee of twenty-five or fifty dollars would be an excellent return for a half-hour's interview with the doctor, whose office consisted of one or two rooms in the ground floor of his brown brick house on Walnut Street. And so the girl from South Carolina would receive all that American Medicine could offer for twenty-five dollars and the expenses of her trip. The cost of treatment was generally in terms of travel. Doctors prescribed balmy climates, and stimulating climates, dry climates and moist climates, in fact any climate which differed from the one in which the doctor resided.

I shall not, in contrast dwell upon the details of the contrasting situation which obtains in 1948. It is however the cost of subsidizing the vast number of auxilliary aids which we have brought to the aids of inspection, percussion, and auscultation which has pyramided the cost of medicine, and made it the important, socio-economic question of the twentieth century.

The vast amount of factual material which has accumulated in the past hundred years has in equal degree changed the practice of medicine. At the turn of the 16th century, Francis Bacon, in the pride of his incomparable 19 year old mind, could say "I have taken all knowledge as my province." In 1848 a young graduate would have considered that the entire range of medical art and science was set before him. The century has brought changes indeed. There are now fifteen boards in American medicine, each setting up standards which require many years of intensive study and training to meet. "General medicine" has itself become a specialty, and we of this association glow with pride when we think that our own beloved Buck Pressley is universally considered to be America's finest example of that most trying of all specialties.

Specialization has, perhaps, been necessary. But it has brought many complications. It is still proceeding. There is a distinguished alumnus of our college and an honorary member of the association who has for many years, in one of America's great clinics, confined himself to a study of the human retina, in health and disease. A colleague remarked that he wondered when Henry was going to announce that from now on he would confine his work to a study of the left retina alone. The two complicating factors of mounting cost and specialization have brought about striking changes in the form of medical practice.

In many parts of the world, Medical practice has been incorporated into state bureaucracy. The mode varies in accord with the social facade of the country. Since in temperament, traditions, and language, England is most nearly like us, we watch with particularly keen interest what is happening there. I am sure I do not have to remind you that under the Labor Government British medicine is undergoing socialization. To this socialization there is great resistance upon the part of organized British medicine. The British Medical Association, in organization, power and prestige, closely approximates our American Medical Association. It is significant that approximately 84% of British doctors voted, in a recent poll, and 90% of the votes were opposed to the government plan. This, in spite of the fact that the income levels under the bureaucratic plan were quite liberal. It is said that the organizers of the plan deliberately set the financial returns quite high in order to lure medicine into the fold. The fact that British medicine, almost to a man, was against the act, indicated that income was not the reason doctors do not wish to be regimented into a bureaucratic framework.

Rather, to paraphrase the editor of Collier's in a recent thoughtful paragraph, it is the sound conviction of all honest and experienced physicians that medicine in its double aspect as art and science, flourishes best in a free and democratic mode and that the doctor-patient relationship is a real and not sentimental factor which must have primary consideration.

Perhaps the most clinching argument in the whole matter is a modification of the old adage that "the proof of the pudding lies in the eating." Under the ideals inculcated during the past hundred years, American medicine has attained a position without parallel in the history of the world.

The experience of the last two wars, in which a large proportion of American physicians took an active part, served to reinforce the feeling that socialization of medicine brought many evils. It can be said without fear of successful contradiction that where military medicine was good, it was because of the employment of the methods employed in our American civilian medicine, without administrative interference and red tape bungling. On the other hand, when Snafu and inefficiency was present, it could be clearly traced to that same bureaucratic rigidity which we regard with justified suspicion and contempt, and which certain contemplated laws would thrust on us now. No one wishes to return to the primordial situation of 1848, but the vast majority wish to avoid the strangling influence of regimented national socialistic medicine. A few years ago Dr. Bauer put the matter in words with which most of us find ourselves in agreement.

"We advocate continued expansion of the practice of medicine, with full development of approved voluntary hospital, medical, indemnity, industrial and commercial insurance against the cost of medical care; the development of public-health and diagnostic facilities everywhere; the use of the voluntary insurance principle in caring for the medically indigent; the development of hospital facilities where present facilities are used to the utmost and are still inadequate; the use of federal funds to aid communities in public health measures, care of the indigent and construction of necessary hospitals when these communities are unable to finance the projects, but with

retention of local administration. In a word let us move ahead steadily, but carefully, in a sound, evolutionary manner. We must not be stampeded into discarding and destroying what has given an unparalled health record. Let us not forget that private enterprise has made America what it is."

There were many differences between the training, the conditions under which work was carried out, the technical tools, and the social-economics problems of those of us who are in meeting today, and these founding fathers of ours who in 1848 initiated the South Carolina Medical Association. But there were great similarities. Some of the problems are as old as time, and human nature changes little. It may be interesting to glance at some of the proceedings of that founding meeting. I quote from Dr. Waring's book.

"Monday, Feb. 14, 1848.

"Pursuant to circulars issued by the Medical Society (this was the "Medical Society of S. C." founded in 1789 by 10 gentlemen practitioners of medicine in the city prior to the year 1783, who met at the residence of Dr. Peter Fayssoux and unanimously agreed to form a Medical Society), a large number of medical men, from all parts of the state, assembled at 10 o'clock this morning, at the Hall of the Apprentices Library Society.

On motion of Dr. Wragg, the meeting came to order and Dr. James Moultrie was called to the Chair, and Drs. Cain of Charleston and Johnson of Camden, appointed secretaries.

The following gentlemen as officers of the Convention were thereupon unanimously elected,

President
Dr. James Moultrie of Charleston
Vice Presidents
Dr. C. Ready—Edgefield
Dr. Isaac Branch—Abbeville
Secretaries
Dr. D. J. C. Cain—Charleston
Dr. R. Johnson—Camden

The convention then proceeded to pass upon certain resolutions, first resolving itself in a "State Medical Association." Many of these resolutions bring sharply into mind the kinship between ourselves and these doctors of a hundred years ago. I quote from a few:

"Resolved that in our transactions with apothecaries, we will deal exclusively with those who abstain from recommending and vending quack or patented medicine, whenever we have the option."

Here is one, which with a few changes might have been passed this year, since it so closely simulates the activity of our association in State health matters.

"Be it resolved, that the Report on the Registration of Births, Marriages and Deaths, with an accompanying memorial, be presented to the Legislature at its next session, and Resolved that the members of this convention and the members of the Medical profession throughout the State be requested to explain to the Representatives and Senators in their districts, the importance of the measure and use their best exertions to obtain the passage of the bill."

It was moved that the President be requested to furnish the members of the Convention with certificates of membership to enable them to return on the railroad free of expense. Adopted.

The insistence on good and sound education which organized medicine has always maintained and its support of its colleges is strikingly exemplified in the following preamble and resolution offered by Dr. Dendy:

"However much other causes may tend to embarrass medical reform, we nevertheless regard the failure of Medical Colleges to require a strict conformity, even to their present low standard, as an impediment worthy of the most serious condition. And while it affords us much pleasure to know that the Medical College of South Carolina stands among the first, in her preparatory requirements and in the enforcement of them, we feel that more may yet be done to elevate her still higher.

"It is apparent to all of us that the term of lecturing in all our Medical Colleges is entirely too short to enable the different Professors to do that justice to their subjects which their importance demands, and that it is far too short to enable students profitably to receive the amount of instruction which should be contained in a course of lectures. The door of entrance also into Medical Colleges is not sufficiently guarded.

"The neglect on the part of first course medical students to attend regularly the lectures, is an evil of great magnitude. It is not only an obstacle to the attainment of Medical knowledge, but it tends to consequences far worse—the destruction of morals.

"The examinations for the degree of M. D. are not generally conducted with sufficient care to secure the ends contemplated by their institution. And as this Convention feels the greatest interest in the prosperity and usefulness of the Medical College of South Carolina, and as we look to her as the guardian of the medical profession of this State, and as the institution which is to prepare those to whom are to be entrusted the progress and perpetuity of all reforms in the Medical profession, therefore

"Resolved, that this Convention does earnestly recommend, that the Medical College of South Carolina, lengthen the term of lecturing, from four to six months, that she may better guard the door of entrance and secure the attendance of first course students by examinations; also that she should conduct her examinations for the degree of M. D. more rigidly.

"Resolved, that should she adopt the above recommendations, we will use our influence in her support."

The future is, for reasons foreign to the ideals and hopes of medicine, uncertain. But if we maintain, in our lives and our endeavors, the courage and indomitable spirit of these forefathers, we may see the next one hundred years bring to fruition miracles only dimly visioned now. Let us salute them and seek to emulate their spirit.

A Case of Dysgerminoma with Description of Recurrence

R. B. DURHAM, M. D.; D. F. ADCOCK, M. D. AND
C. A. SWEATMAN, M. D.
Columbia, S. C.

MISS E. L., aged 13, female, single, student. Admitted to the Providence Hospital 2-28-46 at 11:05 A. M.

FAMILY HISTORY: Mother, aged 48, living and well. Father, aged 59, living and well. Brothers 4, living and well. Sisters 4, living and well. Family history negative for T. B. and diabetes. A cousin died of cancer of the lung and her grandmother died of cancer of the stomach.

CHIEF COMPLAINT: Enlargement of lower part of the stomach, and tenderness.

PRESENT ILLNESS: Began two weeks ago, when patient noticed a swelling in the abdomen and complained of the school bus being rough and causing pain in her stomach, and later complained of the car being rough. She had a diarrhea one week before admission to the hospital which lasted three days, but returned to school two days before admission to the hospital. Mother thought patient was dull and had taken less interest in things about the home all Fall and Winter, but showed little, if any, loss of weight and had no nausea and vomiting.

PAST HISTORY: Patient has had the usual childhood diseases. No severe injuries and no previous hospital admissions. Had had earache last December and several times previous to that.

NERVOUS SYSTEM: Essentially negative. No headaches.

GASTRO-INTESTINAL: Negative until present illness.

G. U.: Menstrual periods began August 1945 and lasted eight days. Next menstrual period was January 1946 with normal flow for 7 days. Next period was February 28th and lasted one night. No urinary symptoms.

HABITS: Normal.

PHYSICAL EXAMINATION: Shows a moderately to poorly nourished girl, anemic and apparently acutely ill. HEAD: Normal in contour. EARS; NOSE; and THROAT: Essentially negative. EYES: Pupils round and equal and react to light. CHEST: Expansion free and equal. LUNGS: Clear to percussion and auscultation. HEART: Regular in rate. Apical beat in 5th interspace 3 inches from M. S. L. Blood pressure 125/80. BREASTS: Definitely beginning to develop. Symmetrical and normally prominent for her age. SKIN: Normal. More hair on upper abdomen than usual in the female of this age. ABDOMEN: Firm, fixed, tumor of lower abdomen extending almost up to the umbilicus and slightly more on the left. EXTREMITIES: Normal. REFLEXES: Normal.

PREOPERATIVE DIAGNOSIS: Tumor mass of lower abdomen, probably ovarian.

LABORATORY: 2-28-46.

BLOOD

Hemoglobin	69%
R. B. C.	2,800,000
W. B. C.	25,000
Polys	76
Lymphocytes	24
Wasserman	negative

URINE

Color	straw
Reaction	acid
Appearance	clear
Sp. Grav.	1.010
Albumin	1 plus
Sugar	negative
Epithelium	1 plus
Pus	few

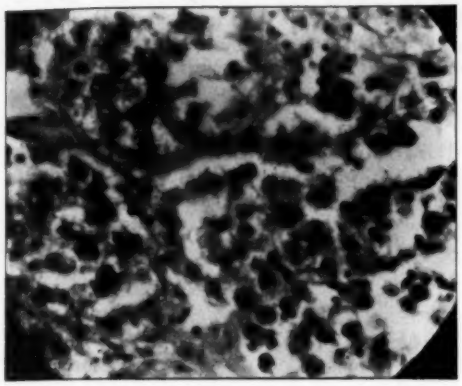
OPERATION: Midline incision. Marked increase in peritoneal fluid which was bloody. A large ovarian tumor mass was made out which was soft in consistency and appeared hemorrhagic in areas. It filled the entire pelvis and was adherent in some areas by small recent adhesions.

The right ovary was removed and the right broad ligament ligated with No. 2 chromic catgut. Sulfathiazole was placed in the wound, one cigarette drain and closure of wound in layers.

The patient received three transfusions; 2-28-46: 3-1-46: and 3-2-46.

PATHOLOGICAL EXAMINATION: 2-29-46 Preoperative diagnosis: Tumor of the abdomen, type undetermined. Nature of operation: Right Oophorectomy. Material for examination: Right ovary.

GROSS DESCRIPTION: Specimen consists of a large tumor measuring 15x13x11 cm. It is covered by intact peritoneum except at one end where it has been torn. Externally it feels soft and cystic. However, on section, it is found to be made up of soft, yellowish-white translucent tissue with considerable areas of



MICROSCOPIC PICTURE OF SLIDE OF DYSGERMINOMA

hemorrhage. At one pole there is similar tissue which, however, appears firmer grossly.

MICROSCOPIC: The tumor is made up of generally large masses of tumor cells with a small amount of fibrous stroma. There are large areas of necrosis and hemorrhage. The tumor cells are moderately large and ploygonal, cytoplasm and granular. The nuclei are hyperchromatic. Mitosis is frequent.

DIAGNOSIS: Dysgerminoma of the ovary.

(Signed) R. Barnett, M. D. Pathologist

Due to the condition of the patient at the time of the first operation the appendix was not removed. Saturday, May 11th, she developed a generalized abdominal pain followed by localization in the right side and an acute appendix was removed. Following the operation, however, she became distended, vomited and seemed to be developing a paralytic ilieus. This may have been due simply to her poor general condition as she later improved and left the hospital apparently well.

SUMMARY: A case of dysgerminoma has been reported in a young girl with a large solid tumor, showing multiple areas of hemorrhage and necrosis. She has apparently normal secondary sex characteristics and no abnormality. Thus far no distant metastasis, nor recurrence of the tumor has been noted.

RECURRENT DYSGERMINOMA

This patient, MISS E. L., aged 15, female, single, student, was admitted to the Baptist Hospital 11-17-47 at 4:00 P. M.

CHIEF COMPLAINT: Lump in right side. First noticed week ago. Soreness.

PRESENT ILLNESS: First noticed lump about week ago. Has grown since first noticed. Last menstrual period October 28, 1947.

G. U.: Menstrual periods began August 1945 and lasted 8 days. Last menstrual period October 28, 1947. No urinary symptoms.

HABITS: Normal.

PHYSICAL EXAMINATION: Abdomen: Scars in lower mid-line and R. L. Q. Large, irregular, tender mass in lower abdomen—more on right than left.

PREOPERATIVE DIAGNOSIS: Recurrent dysgerminoma of left ovary.

LABORATORY: 11-17-47.

BLOOD

Leukocytes	9,300
Polynuclear neutrophiles	58
Polynuclear eosinophiles	0
Polynuclear basophiles	0
Lymphocytes	42
Mononuclears	0
Transitionals	0
Myelocytes	0
Hemoglobin 11-26-47	91

URINE

Albumin	0
Sugar	0
Pus	occasional
Casts, blood, crystals, amorphous	0

OPERATION: Left oophorectomy, biopsy of tumor mass mesentery of sigmoid, separation of bladder adhesions.

Enlarged tumor of left ovary which was multiloculated. A multi-loculated tumor of left ovary approximately size of a large grapefruit. The ovary was semi-solid giving the appearance of ground beef with no evidence of hemorrhage into the tumor mass. However, the tumor mass was apparently breaking down. There was a cystic area at the upper pole of this ovary approximately the size of a lemon which contained a straw colored fluid. There was a mass in the mesentery of the sigmoid colon approximately the size of a lemon which was soft and fluctuate and contained a creamy substance which was apparently pus without odor. There was several adhesions between small intestine from previous operation which were separated and ligated; however, there was no apparent interference with the function of the intestine. The old midline scar was removed. The pedicle was doubly ligated with No. 2 chromic catgut. Hemata stasis was controlled at the sight of separation of the ovary deep in the cul de sac with a running suture of plain catgut. This bleeding was mainly over the right uterosacral ligament. Three sections were taken from the mass in the mesentery of the sigmoid to rule out the possibility of metastasis. Five grams of sulfathiazole crystals were placed in the area. Peritoneum closed with plain catgut continuosuly. Muscles closed with plain catgut continuously. Tension sutures of silk worm gut were placed beneath fascia. The fascia was closed with

interrupted stainless steel sutures. Skin was closed with silk worm gut and approximated with skin clips. One cigarette drain.

PATHOLOGICAL DIAGNOSIS: 11-29-47 Specimen received: Left ovary, tumor mass of left ovary, following removal.

A torn fairly solid ovarian mass measuring 13 cm. in diameter and having fallopian tube attached. On section it is greyish pink and quite resilient.

Sections of ovary show a highly anaplastic growth of ovoid cells supported by fibrous stroma righ in lymphocytes and typical of dysgerminoma. Section of fallopian tube shows serosal implants of the same type growth. DIAGNOSIS: Dysgerminoma of ovary with peritoneal extension.

(Signed) Kenneth M. Lynch, M. D.
per; W. M. Cannon, M. D.

This patient was dismissed from the Baptist Hospital 11-3-47 at 11:10 A. M. and has been receiving deep x-ray therapy for the metastatic nodule in the mesentery of the sigmoid. This nodule cannot now be palpated.

RECURRENT SUMMARY: A dysgerminoma arises from the neutral cells of the ovary, and according to Novak, are less malignant than the granulosa cell cancers, but more malignant than the arrhenoblastomas. A similar tumor of the testis is known as a seminoma, and occasionally the dysgerminoma is called a seminoma of the ovary. The seminoma, in contra-distinction to the dysgerminoma is highly malignant. In Seegar's review of 79 cases in 1938, 48% were on the right ovary and 26% were bilateral. The right ovary shows more development abnormalities than the left, which may explain the tendency of this tumor to be located on the right side.

It is of a low grade malignancy from a clinical standpoint, but very malignant in appearance on the slide and macroscopically. It is approximately of brain consistency and has an extremely rapid growth. However, the two weeks history obtained in the first hospital admission on this particular case was probably due to hemorrhage and necrosis of the tumor mass. This also explains the temperature, malaise, nausea, vomiting and shock. This tumor is frequently associated with arrested sex development and is usually found in young women. Pregnancies have been reported after removal of dysgerminomas. This is reasonable in a neutral tumor, as one of us, Dr. C. A. Sweatman, has had a pregnancy occurring after the removal of an arrhenoblastoma in a very masculine appearing female.

This case showed remarkable radio sensitivity, and this agrees with most authorities on the subject. In Seegar's original review of the literature no case was found in which there was a metastasis to the lung.

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Peptic Ulcer of the Esophagus

Report of a Case

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Case Report:

A. G., a white male, age 54, of Greer, South Carolina was seen on October 5, 1943 complaining of pain in the abdomen and vomiting. Pain in the abdomen began in 1937 and a diagnosis of duodenal ulcer was made. Pain would recur periodically and be accompanied by considerable heart burn and eructations. Symptoms had been constant since May, 1943. Since then he had remained on a rigid diet of milk, eggs and strained oat meal and had lost about twenty pounds in weight. For the past forty-eight to seventy-two hours he had been vomiting.

Past history revealed that he had lost his right arm at the age of 12 in an accident in a cotton gin. Appendectomy was performed in 1937.

On physical examination he was malnourished, weighing 115 pounds. Height was 68¼ inches. The right arm had been amputated just below the shoulder. There was marked dental sepsis. Radial arteries were thickened and there were varicose veins of the lower extremities.

The patient had a large gastric residue which contained free hydrochloric acid 62 degrees and total acidity 100 degrees. A gastric lavage was done and following this a barium meal was given. The stomach was dilated and there was complete pyloric obstruction.

The patient was admitted to St. Francis Hospital to be prepared for surgery. He was scheduled for operation on October 9th and when seen just prior to operation he stated that during the night he had experienced sudden severe abdominal pain. He had board-like rigidity of the abdomen. On opening the abdomen a perforated duodenal ulcer was found. Under the circumstances it was impossible to do anything more than close the perforation. Postoperatively he got along well and was discharged on November 1st on a modified Sippy diet, antispasmodics and alkalies.

He remained well until about the first of December, 1947 when he began having abdominal pain occurring one to one and a half hours after meals with a good deal of eructation. An x-ray was done on December 30th, 1947. The esophagus and stomach were negative and the stomach was practically empty in two hours. The duodenum was narrowed from the previous operation but no evidence of an ulcer was seen. Patient was put on a strict ulcer regime. Three weeks later he began to complain of pain in the right upper quadrant and almost constant nausea. There was vomiting on only one occasion. On the night of January 26, 1948 he was admitted to the Greenville General Hospital. On physical examination the only finding of significance was that of tenderness to the right of the umbilicus. Heart and lungs were normal. Blood pressure 145/80. He had a large incisional hernia. He was given intravenous fluids and a Sippy diet when tolerated.

On January 29th an x-ray of the gastro-intestinal tract was done. The report follows:

"Fluoroscopy of the chest shows no abnormality of heart or lungs. The barium water mixture was swallowed without difficulty and outlined a normally appearing esophagus. The stomach was extremely large and contained a large non-opaque residue. None of the opaque material was seen to leave the stomach and a film exposed five hours after ingestion of the meal showed almost all of it remaining in the stomach. A lateral film showed some barium in a deformed duodenal bulb."

After the five hour film the patient was returned to the ward. Immediately afterwards he vomited and following this he had severe epigastric pain which he described as similar to the pain of the previous perforation but much worse. On examination shortly after this episode the patient was in mild shock and the abdomen was board-like. Blood pressure 110/80. Temperature rose to 102 degrees. White blood count was 17,150. Polys were 89% and lymphs 11%. A film exposed in the upright position showed no free air in the peritoneal cavity.

Surgical consultation was immediately obtained and within two hours the patient was operated upon under spinal anesthesia. There was complete pyloric obstruction and much scarring of the duodenum but no evidence of a recent perforation. Conservative surgery was indicated on account of the patient's condition so a posterior gastrojejunostomy was performed to relieve the obstruction and patient left the operating room in good condition. Postoperatively he received two blood transfusions and Streptomycin, and Wangensteen suction was instituted.

Twenty-four hours later he complained of pain in the left chest which was aggravated by breathing. On examination the left thorax was almost immobile and there was dulness and bronchial breathing over the base. It was felt that he had either Pneumonia or Atalectasis of the left lower lobe. Temperature was 100.4. He was started on Penicillin and Streptomycin

was continued. The following day he became worse and temperature rose to 105. He was put in an oxygen tent and improvement was noted. A portable x-ray of the chest was done which revealed a large effusion in the left pleural space. The following morning, February 1st, he became worse. Aspiration of the left pleural cavity was performed and about 1000 cc of turbid brownish yellow fluid with a fecal odor was removed. During aspiration the patient expired.

An autopsy was performed and the report follows:

"In the thorax the right lung is free with approximately 400 cc of almost clear fluid. The left lung is very much compressed both anteriorly and posteriorly by large areas of fresh empyema although the fluid is brown and not yet frank pus. A heavy coat of fibrinopurulent exudate is present over the pleural surface. The left lung is almost completely atalectatic and the bronchial tree shows a moderate amount of mucopurulent material. The esophagus, stomach and duodenum were removed intact. There was a 1 cm. ragged perforation of the lower end of the esophagus. On opening the esophagus several small superficial ulcerations were seen but surrounding the perforation was a round ulcer with a necrotic base 2 cm. in diameter. This had ruptured into the posterior mediastinum and extended into the pleural space giving rise to the empyema previously mentioned. There was another fairly deep ulcer 2½ x 1 cm. at the same level (immediately above the gastro-esophageal junction) which had not perforated. The stomach was dilated and the operative stoma was perfectly intact. The pylorus was completely obstructed from an old ulcer on the anterior wall. In addition there was a 1 cm. deep fresh duodenal ulcer on the posterior wall which had penetrated to the serosa and was closely attached to the pancreas. A few small areas of fat necrosis were present."

Discussion:

Peptic ulcer of the esophagus is not so rare a condition as was previously thought. This is particularly true since the advent of esophagoscopy. Jackson (1) in 1929 reported twenty-one active and sixty-seven healed ulcers in four thousand esophagoscopic examinations on patients suspected of having esophageal disease. Friedenwald, Feldman and Zinn (2) reported thirteen cases in which the diagnosis was made by roentgen examination. Often, however, the lesion is missed. Jackson describes the ulcer as being "flat" and offers this as one explanation of the failure to demonstrate it by roentgen examination particularly in the early stages. Later when cicatricial tissue forms stenosis may be demonstrated. Certain conditions are necessary for the production of peptic ulcer of the esophagus, either the presence of aberrant gastric mucosa or patency of the cardia through which there is a retrograde flow of gastric juice. Chamberlain (3) of the Lahey Clinic in 1938 suggested an abnormality which might be responsible for patency of the cardia and reported seven cases, six of which had either a congenitally short esophagus, a diaphragmatic hernia or both, and the seventh having aberrant gastric mucosa.

Peptic ulcer of the esophagus occurs predominantly in the 4th and 5th decades and with equal incidence in male and female. It not infrequently occurs concomitantly with ulcer of the stomach or duodenum.

Symptomatology: The lesion may be symptomless or symptoms may be vague resembling a functional disorder and are too often attributed to psychoneurosis (4). Pain is usually retrosternal and extends through to the back. It occurs earlier after meals than that of ulcer of the stomach or duodenum. It is invariably relieved by alkalies. It may occur after solid food but not after liquids. Heart burn and vomiting are usually present. Dysphagia occurs late. Hematemesis and melana may occur. Diagnosis is made by: 1. Esophagoscopy with biopsy of the lesion; 2. Radiography and; 3. Autopsy.

Treatment: 1. That of peptic ulcer in general; 2. Jackson applied 10% silver nitrate directly to the ulcer; 3. Hurst recommends temporary gastrostomy in all cases. Others feel that it should be used only after a medical ulcer regime has failed.

Complications: 1. Hemorrhage; 2. Obstruction and 3. Perforation. Fatal hemorrhage is rare (5). Obstruction may be relieved by peroral dilations. If this cannot be accomplished, gastrostomy is necessary and retrograde dilation is done.

Until recent years, perforation resulted in high mortality. Ralph Adams (Lahey Clinic) (6) reports that after the adoption in 1943 of a plan consisting of immediate gastrostomy, extra pleural mediastinotomy, and massive chemotherapy seven patients were treated by this method, with recovery. If perforation is suspected fluoroscopic and roentgenologic examination with barium is immediately done. If there is extravasation of barium immediate surgical drainage is instituted. In addition a gastrostomy is done for purposes of fluid and food administration and to allow the esophageal perforation to heal. High blood levels of Sulfadiazine and Penicillin are maintained until all systemic signs of infection have subsided.

Conclusion:

A case of a fifty-nine year old man with multiple peptic ulcers of the esophagus is reported. There was perforation of one of the ulcers with resulting mediastinal empyema, empyema of the left pleural cavity and death. There was present also the scar of an old perforated anterior wall duodenal ulcer and a fresh penetrating ulcer of the posterior duodenum. There was complete pyloric obstruction. In this patient, theoretically at least, one of the conditions necessary for the development of peptic ulcer of the esophagus was fulfilled, i. e. the presence of marked gastric stasis with a greatly dilated stomach allowing retrograde flow of gastric juice. Unfortunately microscopic

examination of the esophageal ulcers for the presence of ectopic gastric mucosa was not carried out because of the resignation of the pathologist.

The symptoms of ulcer of the esophagus were masked by the symptoms referable to the acute duodenal ulcer and its accompanying pyloric obstruction. This is easily understood when it is recalled that the segmental localization of pain in lesions just above the cardia is almost the same as that of duodenal ulcer. In retrospect, when no perforation of any abdominal viscus was found to explain the patient's episode of acute pain with shock and a board-like abdomen, an intrathoracic surgical emergency should have been suspected and proper treatment instituted. In retrospect also, it is interesting to speculate that if there had been sufficient time to relieve the gastric stasis surgically before perforation took place, the esophageal ulcers would then have had an opportunity to heal spontaneously.

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Public Health and Protein Nutrition

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Protein, iron, and vitamin deficiencies were reported in 20% of a South Carolina Medical patient survey during 1946.[1] State Board of Health reports for 1945-46 in South Carolina show nutritional defects in approximately 10% of well-baby clinic patients.[2] Nutritional deficiencies are widespread among adults and school children in the United States.[3]

Malnutrition exists in every country in the world. Lack of medically complete surveys handicap the formation of a program for study. Therefore, discussion is here limited to the protein content of example South Carolina diets.

A decline in incidence of the avitaminoses is ascribed to the attention given to their clinical states during the past several years. But little attention has been directed toward the equally vital malnutritive states involving protein intake, nitrogen balance, and amino acid content of dietary protein. Attention is herein to be focused on calculations of the amino acid content of various example diets in South Carolina.[4]

The biological function of protein is well known. In furnishing nitrogen to body tissues, many proteins also furnish a source of phosphorus, sulphur, minerals, and vitamins as a prosthetic. A most important observation concerning the variety of proteins is the varied amino acid content, and it is the effect of the latter with which investigators are now primarily concerned. Progress toward information that may cause much change in dietary habits, and dietary recommendations of physicians is rapid. There are undoubtedly other nitrogenous compounds about which little is as yet known.

Proteins and their constituent amino acids are important in any nutrition program. Essential amino acids are required by animals since their individual cells do not form specialized molecules without certain of these amino acids known to be indispensable. Blood plasma and liver storage fractions are thought to be readily broken down to supply nitrogen for other purposes, but when these stores are depleted, the remaining tissue proteins are retained. Many workers have made dietary deficiency surveys. The reports by Price[1] and the South Carolina State Board of Health[2] are examples. Youman[5] found hypoproteinemia present among mountain people in Tennessee to be 20%. Such results are questionable, inasmuch as these states are usually associated with other physical abnormalities.

Adequate quantities of protein are required, and must contain minimal percentages of all the essential amino acids. These essential acids cannot be synthesized by the body. 8 of them have been found out of the 22 known amino acids to be indispensable to body metabolism. They are: Isoleucine, Leucine, Lysine, Methionine, Phenylalanine, Threonine, Tryptophane, and Valine. Hence, standardization of protein and amino acid content is primary.

The status of the specific amino acids in relation to human health and disease is yet in the experimental state. Information is not fully available concerning specific symptomatology of individual amino acid deficiencies. While this is so, medicine cannot properly ignore the signs of the future, and any work that will

contribute to a more complete knowledge of the processes of health and disease will benefit every other branch of medicine.

Other dietary factors have not been herein overlooked. It is established that the requirements of a complete qualitative diet as we know it today must contain adequate amounts of the following:

1. 8 essential amino acids derived from proteins.
2. An adequate caloric intake derived from carbohydrates, or fats and protein sources in part.
3. 3 essential fatty acids.
4. 13 different minerals.
5. 13 distinctly separate vitamin factors.

Quantitative factors are determined by individual needs and states. Many persons obtain adequate amounts by increasing intake enough to provide a high safety factor when supply permits. Proper dietary requirements can and must be met at an economic level low enough to provide adequate nutrition for the populations of the world.

Proteins will be herein considered from a standpoint of: (1) Calculations of amino acid content of human dietary protein, with several exemplary South Carolina diets. (2) Evaluation of amino acid content of dietary protein. (3) Utilization of protein intake by man.

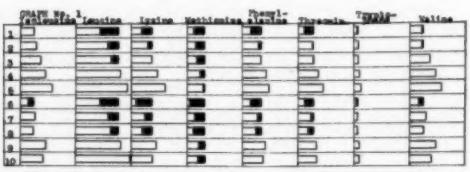
CALCULATIONS OF EXAMPLE SOUTH CAROLINA DIETS

Amino acid analyses

The requirements of Macy, from Block and Bolling,[6] are compared to amino acid content of diets shown in graphic form. They are arbitrarily accepted for comparison.

In graph #1 the source material diets[4] show marked deficiencies on the Macy scale. Diets 4, 5, 9, and 10, are adequate in all essential amino acids compared to the recommended Macy amounts. Actual amino acid content is shown in blocked areas, and deficiencies in black. Diets 3 and 8 are adequate in some amino acids, whereas 1, 2, 6, and 7 show seriously lowered daily amounts of all essentials.

In computing amounts indicated by graphs, actual dietary elements were evaluated for protein content, and calculations carried on by use of a table prepared from Block and Bolling.[6]



Graph of 10 exemplary S. C. diets (4) Legend: 1 cm = 5 gms A. A.
1 - 5 white. 6 - 10 colored.

Graph No. 1:

In contrast to the Coastal farm diets, average diets in the Piedmont and Coastal sections of South Carolina show consistent deficiencies. It is to be expected that low content diets would average the higher ones at such amounts. Analyses are shown in Graph 2.

Graph of average diets of 2 S. C. sections:(4) Legend: 1 cm = 5 gms A. A.
1 - 2 low Piedmont & Coastal. 3 - 4 average Piedmont & Coastal.

Graph No. 2:

In the school lunch studies[4] it was impossible to calculate the total protein intake per day. Amino acid content was determined from data furnished on lunch served at the "complete lunch school," and this multiplied by 3. Average daily intake thus had is probably higher than actual intake. In any event, 3 such meals would not have provided recommended daily amounts of all 8 essential amino acids.

Graph of 3 times content of school lunch (4). Legend: 1 cm = 5 gms A. A.
(i.e. lunch values multiplied by 3 to arrive at probable daily amount)

Graph No. 3:

No data was available for "partial lunch" calculation. Apparently it was lower than the "complete lunch", which would place these children on an even lower amino acid intake.

There is no doubt that the school lunch is of much value to growth and attitude of the child. From these calculations it appears that fortification would insure an adequate amino acid intake, especially in view of dietary control afforded at public schools. Evidence of beneficial effects of school lunches is shown in the following example.[4]

> "One girl of 14 years, weight 63-1/3 lbs. at the beginning of the school lunch study, already retarded 4.9 years by the Wetzel Grid comparison—but of short height and with a normal ht./wt. ratio, finished the study with a weight gain of 15 lbs., and increased height of 3.8 inches. This child showed definite improvement in the complete lunch group, but was still below the 98% auxodrome line."

Hemoglobin studies were conducted in both of these schools.[4] Those of the complete lunch group remained at levels found when the study began. Those of the partial lunch group completed the study program with definitely lowered Hb levels. This is in accordance with theories of Hb formation through exogenous adequate protein intake of complete biologic value. Additional surveys indicate that average South Carolina children are below American averages of Height, Weight, and Hb levels.

Whether or not the subjects of the farm diet survey showed signs of malnutrition is doubtful, principally because of possible complications. These subjects are

in a good position to grow most of their foodstuffs. From the graphs of amino acid content in their diets, it is evident that they do not consume enough of their best protein source foods.

Protein Requirements

Terroine's[7] standard indicates that about 18.75 gms. per day of average animal protein will replace the nitrogen expenditure of about 3 gms. per day. Whereas, Sherman[8] predicates a requirement of protein intake of 21 to 65 gms. per day, averaging 44.4 gms./day for a 70 Kg. adult. Growing children's requirements are variable, in the neighborhood of 3.0 to 4.5 gms./kg./day, or 1.5 gms./lb./day.

Some authorities accept the daily allowance of 1 gm./lb./day, or 70 gm./day for an average adult. Leitch[9] estimates the normal average amount to be 80 gms./day for a 50% margin of safety, based on animal experiments. McCollum[10] places the adult daily allowance of protein at approximately 110-120 gms./day.

There is no evidence of deleterious effects from extreme intakes of protein, if essential amino acids and supportive elements are adequate. For tissue restoration after wasting disease or trauma, animal protein is held to be superior to vegetable protein, due to the high essential amino acid content of the former. In order to compare so-called balanced diets, there follows three sample diets containing 50, 70, and 100 gms. protein per day, using moderate amounts of complete proteins. The accompanying graphs indicate the apparent inadequacy of the 50 and 70 gm. diets in essential amino acids.

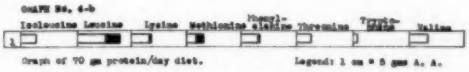
DIET NO. 1:

1 Pint of Milk or Milk Equivalent	15 Gm.	Protein
1 Egg	6 Gm.	Protein
2 Oz. Meat, Poultry, or Fish	12 Gm.	Protein
3 Avg. Servings of Vegetables	3 Gm.	Protein
2 Servings of Fruit	2 Gm.	Protein
4 Slices Bread or Equivalent Grain Product	12 Gm.	Protein
TOTAL Protein	50 Gms.	Protein

DIET NO. 2:

16 oz. Fluid Milk or Milk Equivalent	15 Gm.	Protein
3 Oz. Meat, Poultry, or Fish	18 Gm.	Protein
1 Oz. Ameircan Cheddar Cheese	6 Gm.	Protein
3 Oz. Cooked Legumes	6 Gm.	Protein
3 Oz. Potatoes, Irish or Sweet	2 Gm.	Protein
3 Servings Vegetables, 1 Leafy Green	3 Gm.	Protein
2 Servings Fruit, Citrus or Tomato	2 Gm.	Protein
6 Slices Bread or Equivalent Grain Product	18 Gm.	Protein
TOTAL Protein	70 Gms.	Protein

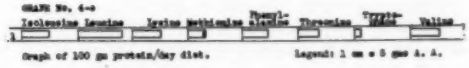
Graph No. 4-A.



Graph No. 4-B.

DIET NO. 3:

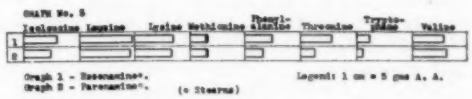
40 Oz. Fluid Milk or Milk Equivalent	46 Gm.	Protein
2 Eggs	12 Gm.	Protein
3 Oz. Meat, Poultry, or Fish	18 Gm.	Protein
1 Oz. American Cheddar Cheese	6 Gm.	Protein
3 Oz. Cooked Legumes	6 Gm.	Protein
1 Serving Potatoes, Irish, or Sweet	2 Gm.	Protein
3 Avg. Servings Vegetables, 1 Leafy Green	3 Gm.	Protein
2 Servings Fruit, Citrus or Tomato	2 Gm.	Protein
5 Slices Bread or Equivalent Grain Product	15 Gm.	Protein
TOTAL Protein	100 Gms.	Protein



Graph No. 4-C:

Graphs Nos. 4-A-B-C show that the 100 Gm./Day Diet is the most complete, with the 70 Gm./Day diet Deficient only in Methionine. Obviously the 50 Gm./Day Diet is borderline.

Commercial preparations of palatable and compatible oral and parenteral amino acid mixtures are available from several sources at present as dietary supplements. An example of each type is hereunder graphed for comparisons.



Graph No. 5:

Prophylaxis may be employed to circumvent amino acid deficiencies. The Food and Nutrition Board of the National Research Council recommends the daily allowances of protein and calories for normal individuals as hereinafter tabled:

Subject	*Protein*	*Total Calories*
Man—70 Kg.	70 Gm. (1 Gm./Kg. Body Wt.)	2500-4500
Woman—56 Kg.	60 Gm. (1 Gm./Kg. Approx.)	2100-3000
Pregnancy, last ½	85 Gm. (Approx. 1.5 Gm. Per 2500 Gm. Normal Wt.)	2500
Lactation	100 Gm. (Approx. 1.7 Gm. Per 3000 Gm. Normal Wt.)	3000

CHILDREN:	Protein	Total
Under 1 year	3-4 Gm./Gm.	100/Kg.
1-3 Years	40 Gms.	1200
4-6 Years	50 Gms.	1600
7-9 Years	60 Gms.	2000
10-12 Years	70 Gms.	2500
Girls: 13-15 Yrs.	80 Gms.	2800
16-20 Yrs.	75 Gms.	2400
Boys: 13-15 Yrs.	85 Gms.	3200
16-20 Yrs.	100 Gms.	3800

Predicated protein requirements on provision that total caloric requirements are supplied without drawing on protein supply for fuel.

EVALUATION OF DIETARY PROTEIN

Because protein for tissue building is a known requisite of animals, a study of the amino acid content of proteins is of value, with special regard for those 8 essential amino acids already listed. All proteins do not contain such acids in sufficient quantities to meet body requirements. Evidence points to endogenous synthesis of the 14 other known amino acids when not present in the diet. It appears—however, that lysine might not be actually essential, possibly being anabolized through methionine as an intermediate product.

Limited growth, diminished vigor, impaired fertility, and lowered antibody manufacture are manifestations of inadequate complete protein intake, or utilization. These symptoms of malnutrition are a part of the picture of an impaired or improper growth. Edema from hypoproteinemia is a practically unknown single symptom, and is rarely if ever—seen alone. It *is* seen in various malnutritive states, which have been called "famine edema," "prison dropsy," "hunger swelling," and other names.

Amino Acid Content of Proteins

Quality of protein amino acid content is indicated by the "biologic" value factor. It is defined as the % of absorbed nitrogen, (N intake minus fecal N of dietary origin) not eliminated in the urine in the course of normal metabolic processes with all dietary elements properly adjusted. It is an index of the ability of proteins to fulfill growth and maintenance requirements of an organism. For instance, the biologic value of gelatin is "0" when considered as a sole source of protein, whereas that of milk is 85% when considered in like manner. Hence the biologic values of protein appear to vary largely in accordance with their amino acid content. Animal and fish lean meat, eggs, milk, being rich in essential amino acids, are of high "biologic value."

The coefficient of digestibility of meats is high, yielding 95-100% of their nutritive value, while that of legumes and tubers is about 80%. Plant proteins yield small amounts of the essential amino acids. Animal proteins then appear to be the ideal amino acid source.

The quality of proteins supplied is related to conditions of animal growth, maintenance, reproduction, tissue repair, lactation, probably disease resistance, and antibody formation. If energy be not supplied by endogenous carbohydrate and fat, then it must be derived from protein sources, of which up to 60% will be used as fuel alone when not supplemented. Experiments have indicated that dietary amino acid content available for body use in tissue building, repair, or replacement, will not be sufficient if caloric fuel requirements so reduce the anabolic residue of protein that the above functions be not properly served. Some conditions require more proteins solely in order to obtain vital necessities in the absence of other sources. Hence, it may appear that more protein is required than is actually needed.

Growth and Maintenance

The role of proteins in growth, development, repair, and antibody titre in immunization against specific diseases is vital. Extent to which proteins affect these factors has recently been fully recognized. Animal studies indicate that such data is applicable to man. Protein's role in building tissues, plasma balance, osmotic pressure, enzymes, hormones, and antibodies is equally vital.

For instance, Madden[11] has shown that plasma protein is not static; it reflects the tissue stores, and there is a ready interchange between plasma proteins and Hb, termed "dynamic equilibrium." In this fashion, a protein pool of the body furnishes materials when needed for whatever emergency.

When protein starvation occurs, plasma proteins are

the first drawn upon for metabolic needs. Not all dietary proteins are of equal value as precursors of plasma protein. Fresh and dried beef serum is acknowledged to be of highest potency for plasma production. Egg white, beef muscle, liver, casein, and gelatin, follow in order. For Hb production, plasma, Hb itself, casein, beef serum, and amino acid mixtures have proven best.

When Rose, W. C.[12] fed the 8 essential amino acids to healthy young men they remained in N balance with adequate supplements of other dietary factors. Furthermore, a deficit of any ONE of these 8 amino acids caused N. imbalance.

Tissue injury, whether from trauma, burns, infection, or major surgery, is associated with N losses, possibly quite large, A negative N balance occurs. In fractures an initial average weight loss of N has been observed to be as high as 220 gms. within 24 hours after injury[13]. Increased high quality protein and caloric foods do not halt the initial destruction, as in starvation *per se*. There can be found no plausible explanation for this process. Plasma and protein losses in burns and infections are proportionately high, as much as 50 gms. protein/day. No attempt to replace such losses may lead to delayed wound healing, edema, gastro-intestinal function impairment, peptic ulcers, and liver damage.

Children are usually found in positive N balance during the most active periods of their growth, with some recession between the ages of approximately 4-5 and 12-13 years. After reaching 20-23 years of age they will show a neutral N balance if healthy and if adequately supplied with dietary proteins. It is evident that the biologic value of protein is most important during the growth years, and important also for proper maintenance as an adult.

Liver damage, whether from infection, poisoning, trauma, or idiopathic cause, has been found to respond to high protein intake of proper amino acid content, plus high "B-complex" vitamin supplement. Prior intake is undoubtedly also a factor.

Whether amino acid dietary content is a factor in carcinogenesis is yet to be fully determined.

UTILIZATION OF DIETARY PROTEINS

Tissue Formation

Comparatively little is known about body processes in which N forms body proteins. Amino acid concentrations rise in the portal venous blood after ingestion, and subsequently soon return to normal values. Amino acid concentration in tissue is about 10 times that in plasma, suggesting that syntheses of tissue occur at the site of cells themselves. It is likewise evident that selection of required amino acids is made by the cells.

Concentration of plasma, albumin, and globulin in the blood is a major factor in fluid balance. Since one gram of albumin will exert approximately 3 times the osmotic pressure of one gram of globulin, it follows that total pressure is not necessarily proportional to total protein concentration in the blood.

Plasma protein colloids act as carriers in the transportation of various substances, either by absorption or chemical combination.

Causes of decreased body protein are faulty or inadequate intake, insufficient utilization, or excessive loss. Assuming the liver to be the focal point of protein regeneration,[14] deficiencies may be classified as pre-hepatic, hepatic, and post-hepatic. Lowered dietary intake, defective digestion, absorption, and abnormal action in the G-I tract may be classified as pre-hepatic. Liver function impairment will result directly in respect to plasma formation. Post-hepatic decrease may be any cause for excessive demand, or excessive loss, as in injuries, burns, or surgery.

Principal factors then may be classified:

1. Inadequate intake.
   - A. Anorexia, nausea and vomiting due to gastro-intestinal disorders, congestive failure, pregnancy, or infectious disease.
   - B. Self imposed or therapeutic restriction; psychoneurosis, chronic alcoholism, fads, ignorance, poverty, or supply.
   - C. Improper cooking and processing.
2. Poor absorption.
   - A. Gastro-intestinal disease, loss of mucosal integrity, hypermotility, fistulas, obstructive jaundice, and Wangensteen suction.
   - B. Protein deficiency per se.
3. Decreased utilization.
   - A. Hepatic disease.
   - B. Malignant disorders.
4. Increased excretion.
   - A. Lactation.
   - B. Parenteral fluids.
5. Destruction.
   - A. Alkalis, sulfonamide compounds, arsenicals.
6. Increased requirements.
   - A. Fever, infection, pregnancy, trauma, burns, ulcers, nephritis.
   - B. Metabolic disorders, diabetes, hyperthyroidism.
   - C. Activity, growth, blood donations.

Physiologically: Protein deficiencies may produce:

1. Lessened blood volume.
2. Increased interstitial fluid volume.
3. Retardation of wound healing.
4. Lowered resistance to infection.
   - A. Perhaps due to depletion of essential protein matrix of body cells, impaired antibody (gamma globulin) formation, altered water balance, or a combination of all three. Precise mechanism unknown.
5. Decreased resistance to intoxications.

6. Muscular atrophy and emaciation in extreme states, with edema.
7. Abnormal fatiguability.
8. Limited and retarded growth of children.
9. Psychosomatic manifestations of malnutritive natures.

Breakdown of protein into constituent amino acids occurs in the digestive process. In cases of impaired digestion, the supply of amino acids fails to reach the tissue cells, and catabolism with atrophy occurs. *Exactly* where N reserves, if they exist as such, are stored in the body is unknown—in spite of the theory of blood plasma as a reserve supply. When intake exceeds requirements excess is excreted in the urine Children need high protein intake, and consistently show a positive nitrogen balance when in good health. They retain more than they excrete, and growth results. Adults usually show a negative or an even balance, retaining only that required for maintenance. When N excretion balances intake, N balance is said to exist.

Deficiency of specific amino acids is a metabolic disease, depending on whether or not the deficiency is relative or absolute. Ie.: relative to diet or dependent on body function. Caloric requirements also must be met by accessory food sources to prevent protein deficiency.

Relation to Clinical States

Clark[15] noted that a high protein diet appeared to eliminate the latent period in wound healing. Liver damage healing after chloroform injection is delayed on low protein diets.[16] In man, there is a varied loss of N, sulphur, phosphorus, and potassium in moderate or severe trauma. Fractures, dislocations, lacerations of soft tissues, surgical incisions, and infusions, are recognized etiologies of protein depletion. This cannot be accounted for merely by muscle material loss alone. It appears that there is a generalized catabolic increase to meet metabolic needs of recuperation. More foods high in proteins will prevent excessive losses, but do not appear to prevent local deterioration. High protein diets are therefore exceptionally helpful during convalescence. It is known that increased body temperature increases metabolism,[17, 18] but no attempt to maintain N balance in fevers has yet been successful.

Autopsy studies of absolute protein deficiencies are rare. Other complications usually develop prior to extreme states, masking the protein deficiency. Atrophy of the musculature, heart, liver, and thyroid gland occur. Histologically, the fat droplets are missing, and glycogen deposits absent from the liver.

Dependent edema and lowered serum albumin are usually found in hypoproteinemia. Salt and water intake are usually high. Edema is seen in legs late in afternoon, migrating to hands and face in the morning, explained by postural changes.

Recovery from wasting diseases may be related to an abnormal requirement for essential amino acids. In the anemic dog[19] high protein diets and iron were found of highest value in restoring serum albumins, globulins, and Hb. In nutritional edema the albumin fraction is lowered, and the globulin fraction variable.[20, 21]

There is no convincing evidence indicating the causation of hypertension from high protein diets. Indeed, in the edema of nephritis, with no increase in blood N, 90-120 gms. per day protein diets frequently succeed in controlling the edema. Strauss[22] found high protein diets helpful in controlling pregnancy toxemias.

As for low protein diets, Rose, C. and Berg[23] imply that excess base might aid in establishing and maintaining low N equilibrium. Vegetarians may thus live.

Immunity Relationship

Antibodies have been found to be globulin molecules whose synthesis is somewhat altered when antigen enters the body.[24] Bigler[25] and Cannon[26] have concluded that antibody production should be influenced by the same conditions which determine globulin production; moreover, as globulin production is dependent on amino acid intake and is impaired by inadequate such intake, it must similarly depend on protein ingestion and use.

Madden and Whipple[27] show that fabrication of normal serum globulin is dependent on intake and utilization of adequate amino acids. This is demonstrated by their work with rats. Using washed sheep's red blood cells as an antigen, injections were made with a 0.25% suspension into subject rats,—one group of which were then fed normally with all requisites, and the other group placed on a markedly reduced amino acid diet. Comparison of blood serum samples before injection with those taken 8 days after antigen injection showed hemolysin titres for the normal group sera to be 10 times higher than those in the low amino acid group. Furthermore, the latter group manifested definitely increased tendency to develop spontaneous infections.

Hypoalbuminemia and hypoglobulinemia were present in the low protein (amino acid) group, with diminished concentration of englobulin and pseudoglobulins 1 and 11.

Administration of complete amino acid diet to the low intake group showed quickly evidenced recovery to capacity to produce specific antibodies.

Schoenheimer[28] has concluded that antibody actions in metabolic reactions involving dynamic exchange with dietary N strongly suggests the same positive correlation between diet, intake, and antibody formation. Thus, if the antibody, or immunologic potential response varies quantitatively with available protein reserve, a luxus protein diet is of ESSENTIAL value in immunizations against specific diseases.

Dietary Requirements

Requirements of amino acids vary with the individual, age, and state of tissue. Macy's recommendations

are an average. Safety factors require a generous allowance above average. Dietary habits are a variable factor.

Forbes[29] and others hold that a nutrient is never, under any circumstances, metabolized by itself, regardless of its source, endogenous or exogenous; and that the dynamic effect depends on the amounts and kinds of nutrients with which it is utilized, plus length of time since last ingestion of food. This is borne out in the experiments of Corry Mann with healthy boys.[30] Moser[4] found that about 2/3 of the complete lunch group, as compared with about 1/2 of the partial lunch group, made 110% or more of the average annual gain in height of American children of corresponding age and sex. The former received more milk and whole grain cereals than the latter.

SUMMARY AND CONCLUSIONS

1. Calculations on Moser's[4] survey data show marked amino acid deficiencies in many South Carolina diets. Even after allowing a generous survey error factor of 50%, the deficiencies are yet marked. Low energy levels, disease resistance, occasional patent dietary deficiencies, and vague physical signs of undernutrition were noted. In extreme cases the diets were cereals, fat meat, and few vegetable supplements. Pregnancy and lactation occurred in some inadequate cases. Although medical surveys of these cases are not available, it may be assumed that such a survey would show total deficiency states in varied phases.

2. Definitely higher antibody titres are had in experimental animals on diets containing adequate essential amino acids. It may be reasonably assumed that the same mechanism holds true in humans. Diet—then—is the foundation stone for successful immunization and for inherent disease resistance.

3. From the growth standpoint in children, the dietary analysis of Graph No. 3, and the isolated case of one child's growth gain, indicate clearly the need for balanced diets containing adequate complete proteins, as well as all other factors.

4. In any disease state, nutrition—from its relation to body resistance, is a priority requisite for prompt recovery.

5. Principal factors influencing nutrition include climate, population density, economic factors, animal nutrition, vitamin and mineral sources, and intake. Protein supply is correlated with all these factors, principally population density and available food sources. World War II demonstrates the effect of deficient diets coupled with disease.

6. Today protein furnishes 9.5—17% of total calories required by many of our population—some in the 10-14% range. 50% of this protein is in fair to good diets. Poor diets lack protein content,[7] of adequate amounts. Those diets providing adequate amounts of milk, eggs, meats, and vegetables, provide ample safety factors of amino acids, vitamins, minerals, iron, rare elements, and a portion of caloric requirements.

7. Since man cannot store the 8 known essential amino acids, a daily supply is required. Maintenance amounts are quite small, but disease, injury states, and growth, require increased intake. Adult health—with particular reference to geriatrics—calls for a well balanced dietary. Proper intake or fortification of foods must be assured as a prophylactic measure.

8. Many American diets derive 1/8 caloric value from protein, 1/3 from fats, and the remainder from carbohydrates, with little regard for biologic value of proteins or correct calorie/protein relationship. Hence, proteins supplied from animal and plant sources should assure adequate amounts of indispensable elements.

9. Hypoproteinemic states found by the medical profession are complicated by caloric, vitamin, and mineral deficiencies. At present a clear cut picture of frank essential amino acid deficiency may best be illustrated by controlled laboratory conditions. That such conditions may otherwise exist is assumed.

10. With excessive loss, or requirement of protein, the intake should be at least 2-3 times normal until metabolic adjustment occurs. It is significant that plasma infusion raises blood protein levels in certain clinical states, but shortly thereafter these levels decrease—indicating use or excretion. This point, although not yet quite clear, deserves further study.

11. Increased income results in increased animal protein intake of the complete protein foods. Low income presents the problem of providing a suitable and enticing substitute.

12. There is no indication that changes in organs of normal animals fed on abnormally high protein diets show anything more than normal physiologic response to increased functional demands.

13. Meats as protein sources are most ideal. Substitution of fats and carbohydrates occurs when lean meats are not available. Satisfactory substitutes of as high biologic value are a necessity.

14. Benefits to the population from nutritional education will result in better stature, weight ratios, stronger children and adults, lessened incidence of disease, better morale, higher response to the complexities of modern life, and increased productive ability and efficiency.

15. The problem cannot be effectively approached except through our educational agencies by adequate extension of facilities available in our academic and medical colleges, and Public Health agencies.

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Office of Publication: (In care of the Editor) ..... Florence, S. C.
Subscription Price ..... $3.00 per Year

JUNE, 1948

HIGHLIGHTS OF THE CENTENNIAL

With 450 members registered (44% of the membership of the Association), the recent meeting in Charleston had the largest attendance on record. This number did not include the wives of physicians—over 200 of them—who came with their husbands.

The printed program, prepared by Dr. Joe Waring and his committee, was unique and attractive. It not only included the usual order of business, pictures of officers, and announcements, but also several pictures of old Charleston.

The House of Delegates had a full docket, but the meeting was run with efficiency and without waste of time by Dr. Olin B. Chamberlain. Most of the committee reports had been mimeographed and copies were furnished to the members. It is evident that the Association is carrying on work in various fields, and that plans are being made for increased activity during the coming year.

Following spirited but orderly voting, Dr. Roderick MacDonald was elected President-elect. The other two nominees were Dr. A. W. Browning of Elloree, and Dr. George Wilkinson of Greenville. Dr. W. R. Tuten of Fairfax was elected Vice-President. As Chairman of Council, Dr. MacDonald has shown capacities for leadership, and the Association is to be congratulated upon his selection and that of Dr. Tuten to office. Dr. C. S. McCants was elected to Council to fill the unexpired term of Dr. MacDonald. Other members of Council whose terms expired were re-elected, as were the members of the State Board of Medical Examiners and of the Board of Examination and Registration of Nurses.

Dr. James E. Paullin of Atlanta, past President of the A. M. A., and the official representative of that body, gave a stirring address in which he presented the problems which are facing the medical profession today.

Dr. Warren Quillian of Coral Gables, Florida, official representative from the Florida Association, discussed the past and future of American medicine, as seen through the eyes of a pediatrician. He presented some of the findings of the recent survey on medical care of children which was made by the American Academy of Pediatricians, and discussed these in terms of our present conditions.

Dr. I. A. Bigger of Richmond, representing the Virginia Medical Association, discussed "Congenital Atresia of the Aesophagus," showing the progress which has been made in recent years in the treatment of this condition in children.

In one of the most practical papers for general practitioners which we have heard, Dr. Paul Beeson of Atlanta, representing the Georgia Medical Association, presented a discussion of "Chemotherapy in Acute Infections."

Representing the North Carolina Medical Association, Dr. V. K. Hart of Charlotte, discussed "Space Filling Lesions of the Nasal Sinuses and Respiratory Tract," illustrating his lecture with numerous slides.

In his inaugural address, printed elsewhere in this issue, Dr. Olin Chamberlain contrasted the problems which faced the doctors of a century ago with those which are present today, showing their similarities and their differences. His paper should be read with care by every member of the Association.

The "Recent Advances Program," on the last morning of the session, was well attended and well received.

The number of commercial exhibits reached an all-time high, and they were well attended by the physicians. Many of the exhibits stressed the theme of the Centennial and of particular interest were the reprints presented by Mead Johnson and Company, as

souvenirs of the occasion. This brochure consisted of "An Account of the Weather and Diseases of South Carolina," by Dr. Lionel Chalmers, of Charles Town, S. C. This was originally printed in London in 1776. Lionel Chalmers is frequently referred to as the first pediatrician in this country.

The Charleston physicians lived up to their tradition as genial hosts. On Thursday evening they had the entire Association as their guests at the Dock Street Theatre for a special presentation of "Dream Girl." Following the play delightful refreshments were served to all.

The annual banquet held at Ashley Park was a memorable occasion with over 500 present. The speaker of the occasion was Dr. Reginald Fitz of Boston, whose general theme was friendliness. In a scholarly and witty vein, he described the close ties which have bound the Medical Associations of Massachusetts and South Carolina through the years.

For his untiring work in behalf of the Association, Dr. Olin Chamberlain was presented with a beautiful silver tray. The presentation was made by Dr. James Young of Anderson, speaking on behalf of all the members.

A gift was also presented to Dr. J. I. Waring, in appreciation of his work as general chairman of the arrangements, and for his preparation of the history of the Association. This gift was presented to Dr. Waring by Dr. Chamberlain.

When Dr. Joe Waring presented us with a copy of "The History of the South Carolina Medical Association," he remarked casually, "Here it is. I doubt if it will be read very carefully, but I hope some will enjoy it." His statement proved to be far from accurate. Members eagerly sought to obtain their copies of the history and it provoked the greatest of interest and appreciation. Each member of the Association is entitled to one copy and those who did not receive theirs at the meeting will be mailed a copy in the near future.

The members of the Woman's Auxiliary attended in large numbers and played a large part in the social activities of the Association. It is becoming evident that not only physicians, but their wives look forward to the annual meeting, and we predict that as years go by, more and more of our wives will go with us to these meetings.

Many individuals played a part in making plans for the Centennial but to two members and to one group of physicians must go the main credit for the success of the Centennial. Dr. Olin B. Chamberlain, President, spared no effort in arranging the program. Dr. Joe Waring, Chairman of the local committee on arrangements, worked untiringly, and the physicians of Charleston were most generous in their efforts and with their money, in sponsoring the social features. To these individuals the entire Association is truly grateful.

MEETING OF COUNCIL

Francis Marion Hotel, Charleston, S. C.

May 12, 1948, 10:00 a.m.

Meeting called to order by Macdonald, Chairman, with the following members present: J. B. Latimer, J. C. Sease, W. W. Boyd, C. R. F. Baker, J. W. Chapman, L. P. Thackston, J. H. Stokes, R. B. Durham, O. B. Mayer, Hugh Smith, M. L. Meadors and J. P. Price.

The Secretary presented his annual report which was received as information. The financial statement of the Association was presented and discussed. The Treasurer was instructed to give a bonus of $250.00 to Mrs. Claude G. Watson, Business Manager.

The report of the Director of Public Relations was heard and received as information. Following a full and free discussion a motion was passed instructing the Treasurer to pay Mr. Meadors a bonus of $1,000.00.

Following a discussion of legislation now pending in the national Congress, a resolution was adopted for submission to the House of Delegates opposing that part of the proposed draft law which would subject physicians up to the age of forty-five to the draft.

A letter was received from the South Carolina Gynecological and Obstetrical Society requesting the appointment of a special committee on maternal welfare. The President was requested to appoint such a committee.

The Secretary presented a lapel emblem which had been furnished by the Indiana Medical Society and which was being presented to all members of that organization after fifty years of practice of medicine. The Secretary was instructed to secure a similar type of emblem with appropriate engraving, to be presented to members of our Association who had practiced medicine for fifty years.

A letter was presented from the South Carolina Hospital Association relative to a campaign for recruiting nurses and our Association was requested to make a contribution of $750.00 to this campaign. The Chairman was asked to appoint a special committee to look into this matter.

Upon petition from the Greenville County Medical Society the following men were made Honorary Members of the Association since they had retired after having been members in good standing for over twenty-five years: Dr. Charles H. Fair, Greenville; Dr. Alva S. Pacl, Greenville.

Because a recent illness had forced him to miss the last two meetings of Council, Dr. W. W. Boyd

tendered his resignation as a member of Council. Council refused to accept the resignation and Dr, Boyd was asked to continue to serve as a member of Council.

Council adopted a resolution commending the State Board of Medical Examiners for the stand which had been taken relative to refusing to grant the privilege of examination to graduates of Grade B and unaccredited medical schools.

A letter from Radio Station WRNO, Orangeburg, S. C., to Dr. C. A. Mobley of Orangeburg, relative to a proposed radio program advertising Edgewood Sanatorium, was presented to Council with the request that Council render an opinion as to the advisability of such a program. Following a full discussion Council voted against such a program feeling that it would be inadvisable for a medical institution of this character to enter the field of commercial advertising.

Following a report from Dr. R. B. Durham concerning the recent conference in Chicago on National Emergency Medical Service, the President of the Association was requested to appoint a special committee to consider the question of civilian defense and to submit definite plans to Council.

A request was received from the South Carolina EENT organization relative to some action regarding Cedar Springs. After a full discussion Council voted to take no action until more specific information and recommendations were made.

After a full discussion of the annual directory which is printed each fall, the Secretary was instructed to enlarge this year's directory so as to include pertinent information relative to each member of the Association in addition to the usual alphabetical and geographical listing.

Mr. James Ragsdale representing the American Policy Holders Company, a subsidiary of the American Mutual Liability Insurance Company of Boston, appeared before Council and presented a special contract for protection against malpractice suits, which would be sold only to members of the Association. Following a full discussion with considerable questioning, Council endorsed the contract as being acceptable and advised the Secretary to furnish Mr. Ragsdale with a letter to that effect which could be sent to the members of the Association. Council endorsed its policy of refusing to enter the insurance field and to sell insurance but asserted its willingness to consider and to approve or disapprove any insurance contract submitted by a reputable insurance company.

Mrs. David Adcock, President; Mrs. P. M. Temples, President-Elect, and Mrs. J. L. Sanders, Treasurer of the Woman's Auxiliary, appeared before Council and submitted their annual reports. Following a general discussion Council adopted a resolution instructing the Treasurer to send to the Treasurer of the Woman's Auxiliary the sum of 50c (fifty cents) per member of the Association per year for the work of the Auxiliary. It was understood that should the Auxiliary need additional funds a specific request would be sent to Council for consideration. Council voiced its thanks to the ladies for the reports which they had submitted and for the cooperation which they had afforded the Association during the past year.

There being no further busines the Council was adjourned.

Julian P. Price,
Secretary

MEETING OF COUNCIL
Morning of May 13, 1948
Charleston, S. C.

The following officers were elected: Chairman, Dr. O. B. Mayer; Vice Chairman, Dr. L. P. Thackston; Editor, Dr. J. P. Price.

Adjournment.

J. P. Price
Secretary

THE TEN POINT PROGRAM

STATE HEALTH COUNCIL TO BE ORGANIZED

One of the most important developments in the work of the Association within the past few weeks, and one that is directly in line with the Ten Point Program, was the beginning May 6th toward organization of a State Health Council in South Carolina.

The meeting of leaders in organizations interested in the promotion of good health, which was held at the Wade Hampton Hotel in Columbia, was the direct result of the work of the Association's Committee on Rural Health, Dr. Harold S. Gilmore, Nichols, Chairman. The other members of Dr. Gilmore's Committee, who share credit for the planning and arrangement of the meeting, were: Dr. A. W. Browning, Elloree; Dr. M. H. Boggs, Abbeville; and Dr. J. A. Hayne, Jr., Hampton.

The purpose and plan of the meeting, as indicated in this column last month, was to bring together, not simply doctors, but leaders from as many of the lay organizations as possible, who are interested in the promotion of health and good medical care, for a discussion of problems in these fields in South Carolina.

While perhaps we would plead guilty to a charge of

being a rather prejudiced observer, it seemed to us that the meeting was highly successful. That view was justified by the enthusiasm expressed by many of those who attended, and by their very evident desire to cooperate in just the sort of thing that Dr. Gilmore and his Committee had in mind in planning the meeting. As will be observed from the list of speakers, all of whom are prominent leaders in their particular fields, and the subjects which they treated, those attending the conference heard presentations by people who knew whereof they spoke. Some of them were truly experts. At the conclusion of each address, there was a brief period for discussion, and many of those present participated in the discussions with interest. Following is the complete program:

Statement of Purpose of Conference—Dr. Harold S. Gilmore, Nichols, Chairman, Committee on Rural Health, South Carolina Medical Association.

"Nutritional Needs of the People in South Carolina," Mr. D. W. Watkins, Director, Clemson College Extension Service.

"Health Needs in Industry," Mr. R. C. Edwards, President, Abbeville Mills, Abbeville.

"The Hospital Situation in South Carolina," Dr. C. L. Guyton, Director, Hospital Division, South Carolina State Board of Health.

"Problems of Health Among School Children." Miss Katherine Edwards, Consultant in Health Education, South Carolina State Department of Education.

"Rural Health—Its Present Condition and Needs," Mr. Neville Bennett, Clio.

"Health in the Rural Home," Miss Jane Ketchin, Assistant Home Demonstration Agent.

"The Problem of the Chronically Ill in South Carolina," Dr. W. R. Mead, Florence.

At the conclusion of the papers, there was a report from the Committee on Resolutions, which recommended the appointment of a Steering Committee to go further into the plan for organization of a State Health Council. The Resolution embodying this recommendation was adopted unanimously by the group. Those named to this Steering Committee of nine are as follows: Dr. Harold S. Gilmore, Chairman, Nichols; Mr. M. L. Meadors, Secretary, Florence; Miss Katherine Edwards, Columbia; Miss Jane Ketchin, Rock Hill; Mr. W. W. Loranz, Sumter; Mr. E. M. Goldsmith, Greenville; Mr. O. G. Dorn, Sumter, Mr. R. C. Edwards, Abbeville; and Dr. C. L. Guyton, Columbia.

Twenty-three organizations responded to the invitation to attend the meeting on May 6th, and the total number present was about 60. It is hoped that all the members of this Association will take note of the effort begun with this meeting and will give their sympathetic interest, and cooperation if called upon, toward the organization and work of the State Health Council, as it develops.

Dr. Julian Price acted as Chairman of the Committee on Resolutions, at the Columbia meeting. Those attending the conference were guests of the South Carolina Medical Association at lunch.

THE WOMAN'S AUXILIARY

Under the leadership of its President, Mrs. David F. Adcock, of Columbia, the Woman's Auxiliary to the South Carolina Medical Association has made great progress during the past year.

With apparently indefatigable energy, Mrs. Adcock and her staff have attended meetings, District, State and National; organized new Counties and Districts; worked for greater membership in organizations already existing; and planned and promoted a concrete program for the Auxiliary. The results are beginning to be evident.

The business and social program planned and carried out by the Charleston Auxiliary was both interesting and constructive, and, we are informed, was greatly enjoyed by the members and their guests.

The worth of the Auxiliary depends in large measure upon its recognition and acceptance by the parent organization—the South Carolina Medical Association.

The thought was well expressed by Mrs. Hutchinson, President of the Richland County Auxiliary, in an article in the most recent (May) issue of the Auxiliary Bulletin. Her subject, "Broader Horizons," indicates a breadth of vision on the part of the leaders of the Auxiliary which is a credit to them, and her article raises a question which should be considered seriously.

"Are our medical societies sufficiently aware of us?", asks Mrs. Hutchinson. "Have they given us the encouragement, the recognition, the faith that we need to make us see broader horizons? Have they given us the opportunities for service that we could bring to realization for them? Frankly, they have not. Two years ago our State Medical Association awakened to our potential abilities and gave us the financial aid for which we are indeed grateful. Two years ago they gave us the Bulletin to keep us abreast of current medical legislation, for which we are also grateful. This year, under the . . . . capable leadership of our State President, Mrs. David F. Adcock, the BULLETIN has become the voice of our organization. And when we have a voice, we speak.

"The day has passed when the ladies of the Auxiliary were willing to content themselves with a cup of tea at a pleasant social gathering. They should not be content with simply this. We are living in an aggressive age, in an age when things are being challenged on all sides of us, when even the standards and mode of practice of the medical profession are being challenged. Can we sit idly by and sip at a cup of tea in the face of all this?

"We do not ask to be given a little chore here and a little chore there. Our lives are much too full and

"...pressure of the gravid uterus mechanically interferes..."

in pregnancy

"Constipation is the rule. The pressure of the gravid uterus mechanically interferes with the function of the small intestine and colon per se and also renders the act of defecation less efficient by its effect on the diaphragm, abdominal muscles and levator ani."

—*Bockus, H. L.: Gastro-Enterology, Philadelphia, W. B. Saunders Company, 1946, vol. 3, p. 999.*

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busy with the manifold duties of ordinary living for that. We simply ask that our medical societies wake up to our potentialities, as our State Association has done. Become aware of us, of our desire for loving and loyal service. Give us those broader horizons. But beneath it all give us faith. Give us faith in ourselves and faith in what we are trying to do. For is not faith 'the safety net which lets us try to walk the rope of courage tight and high'?"

REFLECTIONS ON THE NATIONAL HEALTH ASSEMBLY

Three things particularly impressed us about the National Health Assembly in Washington, the first of May.

First, there was the attitude of the representatives of those groups which are the strongest advocates of compulsory health insurance. Their thought is not "if" but "when" we shall have compulsory health insurance. The only question which apparently remains in their thinking is "how long?".

Second, we believe that nearly everyone at the Conference was impressed with the willingness and ability of representatives of the medical profession, including a number who are high in the councils of the A. M. A., to sit down with leaders of labor, social service organizations and other similar groups and discuss the problems on common ground, with apparently a mutual desire to reach an understanding satisfactory to both. The thought was expressed that if the Assembly did nothing else, it had caused many laymen to realize that doctors can be reasonable and can see the other side of the picture, while those representing the opposite school of thought appeared to realize that there might, after all, be some basis for positions which have been taken by the medical profession.

The third important impression which we brought from the meeting, was of the fairness and forthrightness of Mr. Ewing, the Federal Security Administrator, in his conduct of the sessions over which he presided, and apparently in his direction of the general plan and arrangement of the meeting. There was no mistaking his position on compulsory health insurance. He made it clear in so many words, but, while we do not agree with his thinking, we admire his honesty, not only in saying openly where he stands, but in giving the opposition full opportunity to be heard and to make their position clear in the various sections and in the general meetings. There were one or two instances in which he was clearly irritated by certain of the tactics of those whose basic philosophy is the same as his own.

In view of the foregoing, we are unable to agree with one observation of Dr. Lull in a subsequent release, to the effect that the Assembly "seems to have caused about as much noise, nationally, as a ray of moonlight falling on a cup of custard." While that may be true so far as the noise is concerned, we do not believe that the importance of the meeting can be dismissed in such light phraseology.

It strikes us that with a man of Mr. Ewing's evident honesty of purpose at the head of the Federal Security Administration, the Assembly, conducted pretty generally on democratic principles and according to recognized parliamentary procedures, with the right and opportunity of free expression to all delegates, may contain the possibilities of the beginning of combined constructive thinking and planning on the part of the leaders in organized medicine, government, social service, and the other elements of American life, which is essential for any reasonable solution of the problem at hand.

Dr. Lull congratulates Mr. Ewing and his staff for their fairness and impartiality, and in this we fully concur. As to how the American Medical Association fared generally, this was the expression of Mr. Quincy Howe, Columbia Broadcasting System analyst, in his general summation of the meeting on the final day of the session:

"Some laymen may feel that the American Medical Association has been somewhat slow in coming around to health insurance and to the idea of government aid for health. But look at it from the doctor's point of view: Like all of us, doctors are creatures of habit, and they have learned their habits in about the hardest way there is. Just try to change some of your own habits. Try to stop smoking the way I did; or try pulling up stakes; try going to live in a new community, changing your profession—it isn't easy.

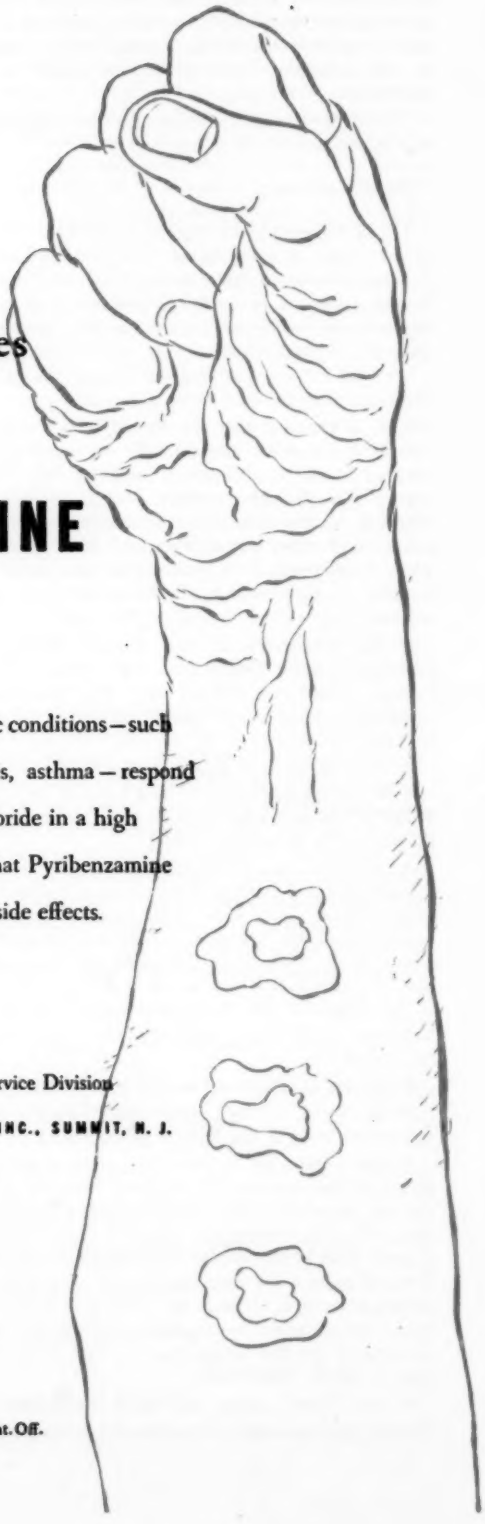
"Those of us who have been impatient with the American Medical Association for resisting change show a sad lack, I think, of understanding of human nature. Doctors have to make so many sacrifices. They submit themselves to so many disciplines, they are so overworked just keeping up with their own jobs that the wonder to me is that any of them have time for anything else. And it is only natural that those who do not interest themselves in something beyond their engrossing daily tasks want to hold on to their own tried and tested way of doing things.

"That so many doctors not only have taken the time to work with the National Assembly, but have shown themselves so cooperative, so understanding, so open-minded, seems to me the most promising and the most important development of this whole meeting."

THE BROOKINGS REPORT

Amid the welter of criticism and demands for change in the present system of administering medical care in the United States, it is both heartening and refreshing to find in the report and recommendations of an impartial group of analysts, recognition of the advantages of the present system, and of the fact that, whatever its disadvantages, it is preferable by a wide margin, to anything government may have to offer by way of compulsory health insurance.

The report of the Brookings Institution was released opportunely, about the time of the meeting of the



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National Health Assembly and surely it should not be too much to hope that it too will be given consideration by the Federal Security Administration, in making its report to the President on the results of the Assembly.

The conclusions and recommendations of the Brookings Report are quoted in full below:

"CONCLUSIONS:

The conclusions based on this foundation are:

1. Probably no great nation in the world has among its white population better health than prevails in the United States. A few small homogeneous countries, such as New Zealand with respect to its white population, are slightly ahead of the United States as a whole, but certain States of the United States with larger populations equal them.

2. It is apparent that the United States under its voluntary system of medical care has made greater progress in the application of medical and sanitary science than any other country. This progress is now reflected in low mortality and morbidity rates of infectious diseases and in increased life expectancy. There is every reason to believe that these trends will continue unabated under our present system of medical care.

3. The nonwhites in the United States have materially poorer health than the whites, but the evidence does not indicate that this condition is primarily or even mainly due to inadequacy of medical care.

4. The advances in health among both the whites and the nonwhites that have been made in the United States in the past four decades do not suggest basic defects in the American system.

5. Although the statistics resulting from the administration of the Selective Service Act—the so-called draft statistics—have been widely used to show bad health among the American people and the need for revolutionary changes in arrangements for medical care of individuals, they are unreliable as a measure of the health of the Nation and cannot be used to show the extent of the medical needs of the country as a whole.

6. Present medical care in the United States compares favorably with that which existed in other leading nations prior to the Second World War.

7. The conditions in extremely poor rural areas that lack the resources to support adequate public services, such as health work, education, and highways cannot be satisfactorily solved by subsidies. This problem calls for a radically different approach, either bringing in new or improved economic activities or getting the people to more favorable and administratively less expensive areas. This condition has been accentuated by the emigration of youth from these areas to urban communities.

8. The United States has some individuals and families not possessed of the resources to enable them to pay for adequate medical care. In the future, as in the past, provision must be made for them through public funds or philanthropy. The evidence suggests that many of them are elderly, impaired, or underendowed or are widows or deserted women or their dependents. It is doubtful if they could be effectively covered by compulsory insurance because they would lack the means to attain and maintain an insured status. The large majority of American families have the resources to pay for adequate medical care if they elect to give it a high priority among the several objects of expenditure. The issue is not whether they can afford medical care but whether they should be compelled by law to pool their risks and to give payment for medical care a top priority. The major alternative for people with ability to pay is to leave them free to determine for themselves what medical care they desire and whether they will pool their risks through voluntary arrangements.

9. Compulsory health insurance would necessitate a high degree of governmental regulation and control over the personnel and the agencies engaged in providing medical care. This field of regulation and control would be far more difficult than any other large field previously entered by the Government, and past experience with governmental regulations and control in the United States causes doubt as to whether it encourages initiative and development.

10. The problem of eliminating politics from Government administration is extremely difficult. It does not seem probable that politics could be eliminated from medical care supplied under a governmental system.

11. Compulsory insurance would inject the Government into the relationship between practitioner and patient. A real danger exists that Government actions would impair that relationship and hence the quality of medical care.

12. The administration of compulsory insurance would require thousands of Government employees for accounting, auditing, and inspection and investigation.

13. The cost of medical care presumably would increase because of (a) administrative expenses; (b) the tendency to insured persons to make unnecessary and often unreasonable demands upon the medical care services; and (c) the tendency of some practitioners and agencies to take advantage of the system for their own financial advantage.

14. The adoption of compulsory insurance would not immediately make available adequate service for all, because there are not at present the facilities nor a sufficient number of trained and experienced physicians, dentists, and nurses to meet the demand which would result from compulsory insurance.

15. Proposals for compulsory insurance provide for payment of practitioners under one or all of three methods: (a) fee for service, (b) per capita, or (c)

salary. Use of the fee-for-service device represents the minimum degree of socialization, but it is administratively difficult. Administrative difficulties would probably result in the adoption of the per capita system which represents a higher degree of socialization or even in the salary system which represents practically complete socialization. It seems questionable whether a country which once embarks on compulsory insurance can turn back but must attempt to remedy defects by more complete government control and administration.

RECOMMENDATIONS:

1. For the present, in our judgment, the National Government would be wise to leave to the individual States the question of whether compulsory health insurance is to be adopted or whether the provision of professional services is to be left in the realm of free enterprise. It seems highly probable that in many communities the intelligent cooperation of consumers and practitioners will develop satisfactory arrangements that remain subject to their own control without National Government administration. It seems highly improbable that this experimentation—possible under our Federal form of government—will ultimately develop a single pattern that is applicable to all sections of the country and is desired by a large majority of the people. If such a pattern should develop, it will doubtless then be adopted with a great degree of unanimity. If compulsory insurance should be adopted now by a narrow vote in the Congress, thousands of persons who are opposed to it would start hostile to the whole undertaking.

2. For the time being the National Government and many of the State governments may well devote their resources and energies to:

(a) Research and developments in the fields of public health;
(b) Health education at the school level;
(c) Teaching of preventive medicine;
(d) Assisting in the acquisition of physical facilities and training of personnel;
(e) Provdiing systematic care for the indigent and the medically indigent. In some States careful surveys of existing conditions will be required to furnish the basis for developing a comprehensive and coordinated program.

3. From the standpoint of public relations, governments might well be advised to leave adult educational campaigns for the control and prevention of disease to the national, state, and local voluntary organizations which have been able to enlist the active cooperation of leading laymen in most sections of the country. It must be remembered that good health is not exclusively a matter of medical care; it also impinges upon causative factors that are nonmedical, such as food, shelter, vice and crime, transportation, and industry. Its maintenance depends also upon the intelligence, interest and cooperation of individuals, families, and local communities.

These recommendations are not widely at variance with those of the majority of the Committee on the Costs of Medical Care, arrived at in 1932 after a comprehensive study.

The years since 1932 have witnessed—

1. A great growth in voluntary insurance both for hospitalization and for medical services.

2. State experimentation with compulsory health insurance in Rhode Island and California.

3. A growing willingness on the part of practitioners to cooperate in the development of prepayment plans and other devices to enable patients who so desire to regularize their payments for medical care.

4. A profound change in the amount and distribution of the earnings of the American people. This change greatly reduces the number who cannot afford adequate medical care if they desire to purchase it.

The experience of the United States since 1932 seems to have demonstrated the wisdom of these recommendations of the majority of the members of the Committee on the Costs of Medical Care. It would seem unwise at this time to substitute for these developments a system of compulsory health insurance by national law which would have the unfortunate tendency to free policies and eventually retard medical progress."

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ABSTRACTS

The Treatment of Granuloma Inguinale With Streptomycin

Harold L. Hirsh, M. D. & S. Ross Taggart, M. D.
Am. J. Syph., Gonor., and Ven. Dis.
32:159, March 1948

The article reports the results in the treatment with streptomycin of 21 unselected cases of Granuloma Inguinale. All the patients were Negroes, 11 men and 10 women, ranging in age from 19 to 48 years. The lesions ranged from ulcerations to granulomatous masses involving buttocks and perineum. The total daily dose used was one gram given intramuscularly in equally divided doses at four hour intervals for a period of time ranging from 6 to 47 days. Within 24 to 48 hours after the start of therapy the lesion became essentially painless; by the end of a week the skin was growing in from the margins of the ulcers; the granulomatous masses began to decrease in size after a week to ten days of therapy and continued to do so after treatment was discontinued, except in the case of a patient with a squamous cell carcinoma at the same site. At the end of two weeks no Donovan bodies could be demonstrated in biopsy specimens from the lesions. There were no relapses or recurrences in any of the patients followed for periods of time up to 14 weeks.

The authors state that while it is too early to endorse completely the treatment of Granuloma Inguinale with streptomycin, one can afford to be optimistic, since the above excellent results have also been obtained by two other groups working on the problem. The criterion used by the authors was to continue the antibiotic until there was evidence of complete healing of the ulcerative lesions. They state that the total daily dose should not be below one gram, and that it would seem reasonable to discontinue streptomycin when the Donovan bodies can no longer be demonstrated in the lesions. They conclude that streptomycin is the drug of choice in the treatment of Granuloma Inguinale.

Disasters Following the Operation of Ligation and Retrograde Injection of Varicose Veins,

Luke, J. C. & Miller, G. G.:
Ann. Surg., Vol. 127, No. 3, pp. 426-431,
March, 1948.

Since the operation of high ligation and retrograde injection of the saphenous vein has become popular in the treatment of varicose veins and since it is relatively easily carried out, it has come to be considered comparatively free of hazard. However, the authors believe that unfortunate results are occurring with increasing frequency, and the purpose of this paper is to point out 21 such cases and to offer suggestions which might decrease the incidence of complications. The serious disasters in the cases reported happened not only to occasional operators, but also to surgeons of great experience and high standing.

Hemorrhage from a torn varix near the saphenofemoral junction is not uncommon, and blind clamping often causes serious injury to the femoral vein, artery or nerve. Pressure is all that is required to stop bleeding until adequate measures can be taken. Ligation and injection of the femoral vein is sometimes done, when the saphenous vein is mistaken for a tributary, rather than the main vein. Cases are reported in which the femoral artery was ligated and injected by well-trained surgeons, thus necessitating subsequent mid-thigh amputations. Femoral arterial spasm immediately following the injection of veins may occur, producing severe pain in the extremity.

Of sixteen cases of deep thrombophlebitis four died from emboli; the twelve surviving patients have permanent disabilities.

To prevent the hazards mentioned, the surgeon must be thoroughly familiar with the saphenous vein and its relationships; he must have adequate operating equipment and experienced assistance. Immediate ambulation also appears to be of great value. Blind clamping is prevented by use of finger pressure, until the bleeding point can be properly identified. The authors suggest that no more than 5 cc. of any schlerosing solution be injected at the time of operation, and by drawing blood back into the syringe this solution may be diluted 3 to 1 with blood before injection.

If embolus should occur, removal of the clot in the vein by ligation of the superficial femoral vein is believed safer by the authors than the use of dicoumarol, but if ligation is not feasible, dicoumarol should be given with the usual precautions.

This report emphasizes that it is not intended to discourage the use of the operation of ligation and injection of the saphenous vein for varicose veins with incompetency, but to warn of the dangers and to offer a few suggestions as to how these dangers may be overcome.

Aerosol Therapy

Giles A. Koelsche
J. Allergy 19: 47-57, Jan. '48

The author discusses the treatment of diseases of the respiratory tract by the inhalation of mists pro-

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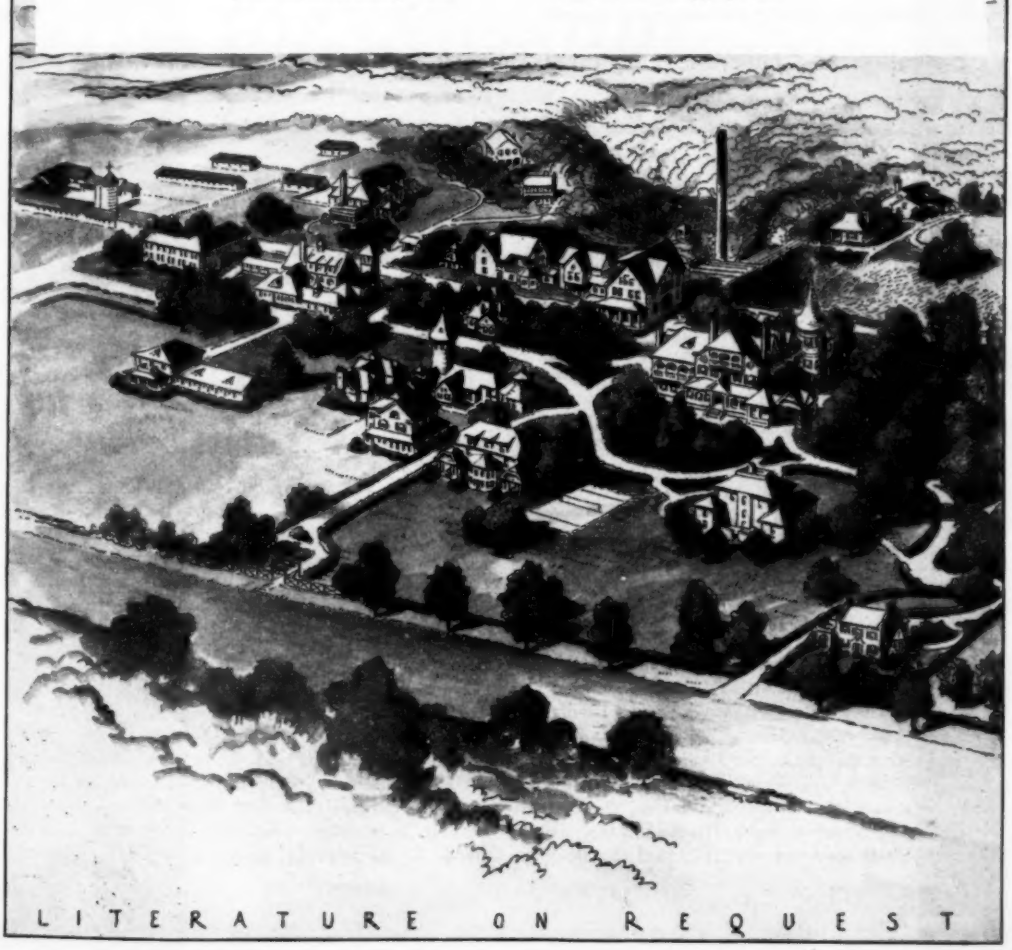


LITERATURE ON REQUEST

duced by nebulizing medicated solutions. To insure therapeutic effectiveness, the particles of the medicated aerosol must be extremely minute. A satisfactory commercial product, the Vapoephrin vaporizer, is described. The stream of air necessary to effect nebulization is obtained from an oxygen tank.

Disease in which medicated aerosols have been used with benefit include bronchial asthma, sinusitis, bronchiectasis, bronchopneumonia, pulmonary abscess, acute laryngotracheobronchitis associated with edema, and severe pulmonary emphysema. The therapeutic agents employed include sodium sulfathiazole, penicillin, and streptomycin for bacterial infections of the respiratory tract; aminophyllin, epinephrin, and neosynephrin for allergic respiratory conditions. The dosages advised are as follows: 1% solution of epinephrin; 0.25% to 1% solution of neosynephrin; 10 to 20 cc. solution of 0.25 to 0.5 grams of aminophyllin administered intermittently or continuosuly; penicillin 30,000 to 50,000 units per cc; streptomycin 0.5 to 1.0 grams dissolved in 20 cc. of normal saline.

Aerosols of epinephrin or neosynephrin are of value in relieving acute attacks of asthma; good results are also reported with the use of aminophyllin aerosol. Ammonium chloride may be added because it facilitated expectoration by liquefying tenacious sputum. Where the asthma may be due to bacterial infection, so called intrinsic asthma, penicillin is often beneficial. Acute and chronic sinusitis is another disease successfully treated with penicillin aerosol. The use of a vasoconstricting nasal spray just before starting the administration of penicillin aerosol is advised. Aerosols of the antibiotics are of real value in combatting the infection associated with bronchiectasis and in preventing postoperative complications. In laryngotracheobronchitis with edema aerosols of physiological saline with propylene glycol and penicillin directed into the tracheotomy opening have been used with good results. In pneumonia the intramuscular administration of antibiotics is still the preferred treatment but in cases due to streptococcus, staphylococcus, and klebsiella pneumoniae, the administration of antibiotics by aerosol may prevent such complications as formation of lung abscess. The results of aerosol therapy in cases of emphysema are not encouraging.

Pathological Conference, Medical College of the State of South Carolina

KENNETH M. LYNCH, M.D., PROFESSOR OF PATHOLOGY

ABSTRACT #563

Presenting: Student Creticos.

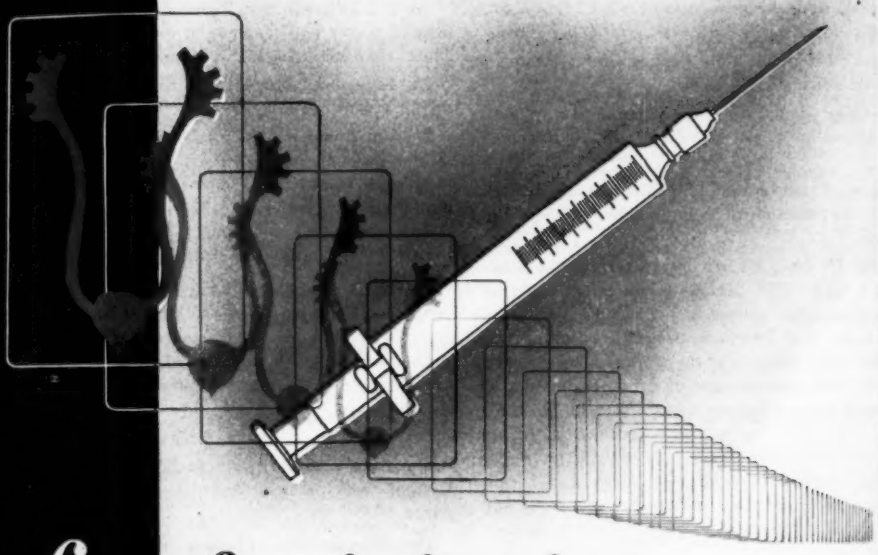
HISTORY: This is the case of a 12 year old colored boy who was first seen in the clinic in September 1937. His chief complaint at that time was pain in lower abdomen with accompanying swelling and pain in the chest of 2 years duration. Physical revealed a poorly developed and undernourished patient with sores on his arms, back and legs. Lymphadenopathy noted at that time. Wasserman was negative. Since that first visit he came to clinic fairly frequently for next 7 years complaining of chest pain, abdominal pain and joint pains. On several occasions rales were heard in his chest. Tuberculin in December 1937 was negative. Heart was found enlarged to right and left and a systolic murmur was heard. In 1940 systolic and diastolic murmurs were heard over precordium and the sedimentation rate at this time was 13 mm. uncorrected. 65% sickling of erythrocytes in 24 hours was noted. From 1940 to 1944 patient was not seen in clinic. On February 23, 1944 he was admitted to Roper with chief complaint of "pains in head, hip bone and legs," fever, loss of appetite and malaise. He was rather stuporous, but further questioning revealed that there was soreness of elbows, shoulders, wrists, hips and joints of feet and ankles. These areas were stiff and tender to touch. His neck was similarly affected. His temperature was 101° and it spiked on several occasions to 102°. His heart was enlarged and a blowing apical systolic murmur was heard. The sclerae were yellow and the liver was tender and palpable 5 cm. below the costal margin. He remained in the hospital 2 weeks. Jaundice gradually disappeared as did the pain and tenderness. The stiffness of the neck was last to disappear. On that admission laboratory findings were as follows:

Urine: Dark brown, Sp. Gr. 1.010-1.012, alb. + to ++. Bile 4 plus. Urobilin +.

Blood: RBC 2.4-3.9, Hb 8.5-11, WBC 15,000-11,000. Sickling 95%, 24 hours. 5% nucleated RBC. Sed. rate 41. Vandenberg direct ++++.

Stool: Greyish, no occult blood, ++ bile pigments. Benzidine test (urine) ++. Icterus 180-50. Wasserman negative. March 1, 1944—Two views of this skull do not reveal any evidence of sickle cell anemia. Discharged improved.

On 5/13/44 he returned to the emergency room complaining of fever and "hurting all over." T 104.6, P 128, R 28, B. P. 144/70. Examination revealed a thin colored boy, acutely ill and semicomatose. Sclerae were icteric. Dyspneic with visible pulsation of vessels of neck. Rhonchi over both lungs, but no imposement of resonance. PMI in 6th interspace in mid-clavicular line. Loud blowing systolic murmur "over entire chest" with accentuation of 2nd sound. Liver palpable. Knees and hips tender on



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LABORATORY: RBC 2.5 M; Hb 6 gm., WBC 40,000 with 82% polys, 17% lymphs, and 2% monos; 2% nucleated red cells.

Urine: Color dark amber to black; 1.012 sp. Gr.; + alb.; + hyaline casts; bile four plus. Sed rate 43 mm.

Wass. neg.; Prothrombintine 96%. Icterus index 66: Sickle cell preparation 40% immediate and 70% in 30 minutes.

COURSE IN HOSPITAL: Temperature varied between 98.6 and 105°. Nurses notes on morning of admission reveal that patient was coughing at frequent intervals. Later that afternoon projectile vomiting was noted. Day after admission the nurses notes showed that patient had incontinence of urine, crying out at intervals and not responding when talked to. On third day post admission one examiner noticed increased jaundice and comatose condition of patient. Rales were heard throughout both lung fields and breath sounds were increased. Respirations became rapid and shallow. On the fifth postoperative day the patient expired.

Dr. Ralph Coleman, Conducting.

Dr. Coleman: Mr. Davis, please give us your analysis of this case.

Student R. J. Davis: One can pretty well make a diagnosis of sickle cell anemia from the age, race, joint pains, icterus and laboratory findings. A stiff neck may be seen in sickle cell anemia and may simulate meningitis. The enlarged liver and the heart findings, together with the pain and aching all give support to this diagnosis. Fever and jaundice are often seen in crisis and I believe he had a crisis on both occasions. I think the leucocyte count here is higher than it should be, however.

Dr. Coleman: By what criteria do you establish the diagnosis of sickle cell crisis?

Student Davis: By chest, abdominal and joint pains, jaundice, stiff neck, fever and leucocytosis.

Dr. Coleman: How do you explain the direct van den Burgh?

Student Davis: I can't. It should be indirect. Severe jaundice may sometimes change reaction however.

Dr. Coleman: What about palpable spleen?

Student Davis: The spleen in sickle cell anemia at first is enlarged and then becomes small and fibrotic. The patient is young enough, so that duration of disease might not have resulted in an atrophic spleen.

Dr. Coleman: Mr. Freeman, do you agree with what has been said?

Student Freeman: I too think it is sickle cell anemia. This can explain most of the symptoms. As regards the 40,000 blood count—these people are very prone to develop secondary infection. I think he probably had this.

Dr. Coleman: What are the X-ray changes in sickle cell anemia?

Student Freeman: Skull shows thickening with thinning of cortex and increase in marrow trabeculations. These changes are not always present.

Dr. Coleman: What do you think was the cause of death?

Student Freeman: Bronchopneumonia. Enlargement of the liver might be indicative of some degree of congestive heart failure, but I would like two other symptoms before making a definite commitment along this line.

Dr. Coleman: Do you think the leucocytosis and temperature are consistent with sickle cell anemia?

Student Freeman: I think they could be this high in sickle cell anemia but bronchopneumonia would be a likely condition to elevate them above the level usually seen in an uncomplicated case of sickle cell anemia.

Dr. Coleman: What about the enlarged spleen?

Student Freeman: This finding is inconsistent. I thought these patients tended to splenectomize themselves.

Dr. Coleman: Mr. Furman, can you suggest any additional considerations?

Student Furman: Rheumatic fever should be considered and it may be difficult to differentiate between these two diseases. The joints may be affected in both, but usually have only 1 or 2 joints affected at a time in rheumatic fever. There is no jaundice in rheumatic fever and the fever and white blood count are not usually this high.

Dr. R. Pratt Thomas: Final Pathological Diagnosis: *Meningo-encepholitis, acute, purulent. Sickle cell anemia.*

This case illustrates the eventual outcome of many of these cases of sickle cell anemia. It also emphasizes the danger of a previously established diagnosis in that when one diagnosis has been firmly established there is a tendency to try to explain all subsequent events on this basis and to overlook other possibilities. I think the leucocytosis and fever were too high for uncomplicated sickle cell anemia and the patient too toxic.

The brain showed a thick greenish-yellow meningeal exudate that was particularly abundant about the brain stem. Microscopically there was heavy inflammatory involvement of ependymal linings of the ventricles as well, with extension of the suppurative process into the brain substance. Cultures of the meningeal exudate at the time of autopsy revealed a mixed infection consistent with streptococcus viridans and probably Friedlaender's bacillus. This was the cause of death.

I am sure the spleen was never palpated, as it weighed only 7 gm. and was transformed into a markedly shrunken fibrous structure.

The vessels in general were stuffed with sickled and elongated forms of erythrocytes and there was profound siderosis of the spleen.

CORRESPONDENCE

Dr. Julian Price, Editor
South Carolina Medical Journal
Florence, South Carolina

Dear Dr. Price:

For years the South Carolina State Board of Health has had a contract with E. R. Squibb and Sons. This contract has been cancelled by mutual agreement, and in the future the Service Section of the Division of Finance, State Board of Health, will handle all such orders for biologicals.
We would like for you to call attention to this matter in the Journal.
All such communications should be addressed to:

South Carolina State Board of Health
Biological Service
Hampton Office Building
Columbia, South Carolina

Very truly yours,
Ben F. Wyman, M. D.
State Health Officer

Editor
South Carolina Medical Association Journal
Florence, South Carolina
Dear Sir:

The Southeastern Section of the American Urological Association is in receipt of a fund to be used for Prize Essays presented before the annual meeting of this section. The Association will appreciate a notice in your journal announcing this prize which contains the following information:

The Southeastern Section of the American Urological Association announces receipt of a $1000 donation from Mr. and Mrs. William R. McEwen, Fort Lauderdale, Florida. The fund is to be used to stimulate research on the problem of "Urinary Bladder Dysfunction." An award of $250 will be made for the best essay presented before the Annual Meeting of the Southeastern Section. Competition is open to men who have graduated from Medical School within the past ten years. Further information may be obtained by writing to Dr. Russell B. Carson, 408 Sweet Building, Fort Lauderdale, Florida, Secretary-Treasurer of the Southeastern Section of the A. U. A.

Yours truly,
Russell B. Carson, M. D.
Secy., Treas.

DEATHS

WILLIAM ASBURY ROURK, JR.

William Asbury Rourk, Jr., 50, of Myrtle Beach, died at his home on May 18, 1948, after an illness of two weeks.

A Native of North Carolina, Dr. Rourk received his education at the University of North Carolina and at the Jefferson Medical College in Philadelphia (Class of 1924). Following an internship in Philadelphia he located in Myrtle Beach where he practiced until his death.

His cordial smile and his gift for friendship made Dr. Rourk one of the most popular physicians in the state. He was known not only to the year round citizens of Myrtle Beach but to a large number of summer visitors who had occasion to call upon him for his services. He was extremely active in the religious and civic activities of his own community, having served as Treasurer and Deacon in the Presbyterian Church and also as a member of the city council. Myrtle Beach will certainly miss his presence and his counsel.

Dr. Rourk is survived by his widow, the former Miss Gertrude MacDonnell of Philadelphia, and one son.

MANNING LIONEL NELSON

Dr. Manning Lionel Nelson, born in Charleston, November 1883, died in the Baptist Hospital, Columbia, February 21, 1948, after a brief illness.

Dr. Nelson received his literary education in the Charleston schools and at Belmont College, North Carolina. Entering the South Carolina Medical College, he first studied Pharmacy, then medicine, graduating with the class of 1909.

Dr. Nelson's thirty-eight years of active life as a physician were given to the town of North and vicinity. He married Miss Leila Bobo of North, who survives him. Their only child, Dr. M. L. Nelson, Jr., was killed in World War II, while serving in the Pacific area.

Dr. Nelson was devoted to the practice of medicine and gave unselfishly of his time to a large practice among people who loved and honored him not only as their physician but as their friend.

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President: Mrs. P. M. Temples, Spartanburg, S. C. Publicity Secretary: Mrs. W. H. Folk, Spartanburg, S. C.

PRESIDENT'S REPORT
1947-48

To serve as president of the Woman's Auxiliary to the South Carolina Medical Association is a real privilege, which has been fully realized and deeply appreciated.

Though the duties of the office are strenuous, this year has been a pleasant and interesting one, and has been unusually significant in many ways.

During my term of office I have enjoyed the fullest cooperation from the Advisory Council and from every officer and committee chairman. In relinquishing this office I bespeak the same cooperation for my able successor, Mrs. Temples.

In accordance with the National program MEMBERSHIP and PUBLIC RELATIONS have been stressed throughout the year, though all other auxiliary objectives have been closely followed.

Growth of the state Auxiliary has been extended by the organization of two new district units, composed of five counties each. This makes 12 local auxiliary units in the state organization with a total of 28 of the 46 counties, organized. The membership of 545 is an increase this year of 140 members. The loss of three members through death is sincerely regretted.

The programs of the local units have been largely on health education. Cooperating with the program of Public Relations members of the Auxiliary have given freely of their time in all civic enterprises, have cooperated fully with other groups in promoting health programs and have participated in numerous drives such as the American Red Cross, Cancer, Tuberculosis, March of Dimes, Crippled Children and the like. One county Auxiliary conducted the Cancer Drive in its entirety.

South Carolina has been alert to the importance of the recruitment of student nurses. Every local organization has supported the campaign. Several intensive drives have been conducted by local auxiliaries throughout the state, with most gratifying results. There have been two nurse scholarships given.

Efforts to promote the circulation of the Bulletin and Hygeia have been rewarded with an increase in subscriptions to both periodicals.

The Student Loan Fund continues to be an active project, in the hope that it will grow into an adequate amount of money for use in the probable lean years to come. Historical research has been carried on in each local unit. More than 50 biographies of deceased South Carolina physicians have been collected this year, making the total of 401 on file. Six historical papers have been sent to the Southern Historian to be filed with the committee on the Romance and Research of Medicine. The request of Dr. Waring that pictures and biographies of all past presidents of the Association be secured was fulfilled 100%. Though that task required a considerable amount of correspondence it is a pleasure to report its completion. Doctor's Day, March 30, was fittingly observed in every local auxiliary.

The president has been present at every national meeting and the meeting of the Southern in Baltimore. Upon invitation, she has visited every county organization during the year, in addition to organizing two new ones, and accepted an invitation to speak to the Business and Professional Women's Club of a neighboring town on "The Recruitment of Student Nurses."

Through the splendid cooperation of the Director of Public Relations of the Medical Association the realization of an Auxiliary publication has been made possible. The Auxiliary Bulletin is YOUR official organ. You are urged to use it freely, and to help it serve the purpose for which it is intended. To this publication and to the Journal of the Medical Association your president has contributed articles regularly.

Having accepted Dr. Waring's kind offer to provide a permanent storage space for the Auxiliary archives, it is a pleasure to report that all records of the state organization have been stored in the Medical College Library in Charleston, and can be referred to at any time by the officials of the Auxiliary.

Through the loyal and wholehearted support and cooperation of the South Carolina Medical Association, the Advisory Board, Officers, Councillors, committee chairmen, county presidents and active members of the Auxiliary the foregoing accomplishments have been made possible. The theme for the year, "Accomplishment Through Cooperation" has in some part been fulfilled, but we look forward with confidence to years of greater service and progress.

To see the Auxiliary steadily growing; to see understanding and cooperation between auxiliaries and medical societies constantly developing; to see advisory councils increasingly assuming the responsibilities of directing the work of the auxiliaries along constructive lines; to see education of the laity slowly and quietly, but surely progressing; to see fellowship increasing and fine friendships being formed; to know that auxiliaries are increasingly contributing toward unity, within the profession and better understanding between the medical profession and the public of the responsibilities of each toward the other; these and the joys that come from our pleasant social relationships in happy meetings like this, make membership in our organization an honor, and service a pleasure. Such results are full compensation for hard work.

Respectively submitted,
Eloise Daniel Adcock, President
(Mrs. David F. Adcock)

BROADER HORIZONS

Let us pause for a moment mid the hustle and bustle of our hurly-burly days and give new thought to the meaning of our beloved Auxiliary. Beloved it truly is, because it is the medium of our service to a profession which became dear to each of us the day we became MRS. DOCTOR. Of our time and our talents we have given unstintingly. Never once have we asked for praise or even recognition. That we have accomplished much, our records show—that we could accomplish even more, we already know. Why do we pause for thought? Why do we wish to take stock of the situation as it appears to us today?

That we are "going places", to use a cant expression, is within our ken. We have already arrived at many of the "places" which were our goal. Our watchword, SERVICE, has ever been before us. Service to others in a general sense, but service to the medical profession in a far more specific sense. Are our medical

societies sufficiently aware of us? Have they given us the encouragement, the recognition, the faith that we need to make us see broader horizons? Have they given us the opportunities for service that we could bring to realization for them? Frankly, they have not. Two years ago our State Medical Association awakened to our potential abilities and gave us the financial aid for which we are indeed grateful. This year, under the guidance of Mr. M. L. Meadors, Director of Public Relations of the South Carolina Medical Association, and the capable leadership of our State President, Mrs. David F. Adcock, the BULLETIN has become the voice of our organization. And when we have a voice, we speak.

The day has passed when the ladies of the Auxiliary were willing to content themselves with a cup of tea at a pleasant social gathering. They should not be content with simply this. We are living in an aggressive age, in an age when things are being challenged on all sides of us, when even the standards and mode of practice of the medical profession are being challenged. Can we sit idly by and sip a cup of tea in the face of all this?

We do not ask to be given a little chore here and a little chore there. Our lives are much too full and busy with the manifold duties of ordinary living for that. We simply ask that our medical societies wake up to our potentialities, as our State Association has done. Become aware of us, or our desire for loving and loyal service. Give us those broader horizons. But beneath it all give us faith. Give us faith in ourselves and faith in what we are trying to do. For is not faith "the safety net which lets us try to walk the rope of courage tight and high?"

Hildegarde S. Hutchinson

Dear Members of the Woman's Auxiliary to the South Carolina Medical Association:—In following the splendid foundation laid by Mrs. Adcock, as well as all former presidents, we must go forward with ever increasing opportunities for Auxiliary accomplishments. To do this in one united effort, every member must be interested in the work and co-operate with her officers and chairmen, who are anxious and ready to assist all, in every way possible.

I take great pleasure in announcing the appointment of the following committee chairmen:

Parliamentarian	Mrs. D. F. Adcock
Public Relations	Mrs. W. S. Scott
Hygeia	Mrs. E. O. Hentz
Membership	Mrs. J. W. Kitchin
Legislative	Mrs. H. L. Timmons
Legislative	Mrs. H. L. Timmons
Bulletin	Mrs. James Gressette
Post-war Planning	Mrs. J. A. Seigling
Jane Todd Crawford	Mrs. J. H. Crooks
Publicity Secretary	Mrs. W. H. Folk
Corresponding Secretary	Mrs. J. D. Nelson

All Medical Auxiliary members should continue reading every issue of the national and South Carolina Bulletin and the Journal of the South Carolina Medical Association for important information of our work.

Your president is looking forward to working with you as an Auxiliary this coming year, and let us all remember our activities must be subordinate to the parent body, the Medical Association.

Mrs. P. M. Temples

Mrs. P. M. Temples, Spartanburg, S. C., President, Woman's Auxiliary to the South Carolina Medical Association
1948-1949

The twenty-third annual convention of the Woman's Auxiliary to the South Carolina Medical Association began its three day program on May 12 with various board and committee meetings. The convention proper began on the next morning with the meeting of the House of Delegates at nine-thirty. Mrs. David F. Adcock of Columbia, state president of the Auxiliary, presided. The program meeting followed at eleven O'clock. Greetings were brought by Mrs. J. A. Seigling, president of the Charleston Auxiliary, and Mrs. Manly E. Hutchinson of Columbia responded.

Honor guests at the convention were Mrs. Eustace A. Allen of Atlanta, president of the Woman's Auxiliary to the American Medical Association, and Mrs. Olin S. Cofer, also of Atlanta, president of the Woman's Auxiliary to the Southern Medical Association. Greetings were brought by Dr. Olin B. Chamberlain of Charleston, president of the South Carolina Medical Association. Dr. Robert B. Durham of Columbia, president-elect of the Association, was presented. At the conclusion of the program meeting Mrs. Adcock presented the gavel to Mrs. P. M. Temples of Spartanburg, who succeeds her as president.

Dr. Walton Van Winkle, Jr., Secretary Therapeutic Trials Committee of the Division of Research and Therapy, American Medical Association, of Chicago, was the guest speaker at the luncheon held in the ball room of the Fort Sumter Hotel at one O'clock. Dr. Van Winkle's subject was "New Research Dis-

coveries." Also present at the luncheon were members of the state advisory council, including Dr. T. A. Pitts of Columbia, Dr. Vance W. Brabham, Sr. of Orangeburg, and Mr. M. L. Meadors of Florence.

Entertainment for the afternoon was a walking tour of four old Charleston houses and one garden in the Church Street area, ending with a tea at the home of Mrs. W. Jervey Ravenel. These houses and the garden were opened as a special courtesy to convention guests.

Mrs. Olin B. Chamberlain was convention chairman and Mrs. I. Ripon Wilson was co-chairman. Miss Eloise Adcock of Columbia served her mother as president's page, assisted by Misses Elizabeth Speissegger and Joyce Taft of Charleston.

NEWS ITEMS

Dr. Albert B. Wolfe has announced the opening of his office in Orangeburg, his practice to be limited to surgery.

Dr. William Atmar Smith of Charleston was the principal speaker at the meeting of the Anderson County Tuberculosis Association in April.

Dr. Robert Pickens Marshall, a native of Greenwood, has won a $1,500 fellowship to study socialized medicine in Sweden. The fellowship was received from the American-Scandinavian Foundation.

Dr. Robert Stanley and Dr. William Schulze of Greenville were the speakers at the May meeting of the Greenville County Medical Society. Dr. Stanley spoke on "Hypertension" and Dr. Schulze on "Indications for Spleenectomy."

The Edgewood Sanitarium, which was formerly in Aiken, has been moved to Orangeburg. Dr. Orin R. Yost has announced the association of Dr. Edward M. Burn in the practice of neurology and psychiatry.

GOLF TOURNAMENT

The American Medical Golfing Association will hold its 32nd Tournament on Monday, June 21. The beautiful Olympia Fields has been reserved for the medical golfers' tournament. Dinner will be served in the clubhouse and prizes will be awarded.

Olympia Fields Country Club has two eighteen-hole courses which are ideal for experts and a treat for players with higher handicaps. Fellows may tee off between 7:30 a.m. and 2:00 p.m. Luncheon will be served at the Club. The Golfers' Banquet will be held at 7:00 p.m. Entertainment will follow the awarding of prizes.

The Chicago Tournament will give an opportunity to old and new Fellows to enjoy a wonderful day of golf, to win a nice prize, and to join in the famous Good-Fellowship of the American Medical Golfing Association. All male Fellows of the American Medical Association are cordially invited to become Fellows of the American Medical Golfing Association. Write to: Secretary Bill Burns, 2020 Olds Tower, Lansing 2, Michigan, for application blank.

Participants in the tournament are required to present their home club handicap, signed by the Club Secretary—or to accept a handicap set by the AMGA Handicap Committee. No handicap over 30 is allowed. All 18 hole trophies and prizes are awarded on the basis of scores for the first 18 holes played. A Fellow absent from the annual banquet following the tournament forfeits his rights to a trophy or prize.

Some 55 members of the Southeastern Society of Neurology and Psychiatry met at Edgewood Sanitarium in Orangeburg recently for the last meeting of the Society this season. The next meeting is scheduled to be held in Milledgeville, Ga., in September.

Dr. R. S. Matthews, chief of the Neuropsychiatric section of the Veterans' Administration Hospital, Fort Jackson, gave a paper on migraine headaches. Dr. Matthews told members of the society at this clinical meeting that two drugs are offering more and more help to sufferers from migraine headaches. He identified the two drugs as thiamine chloride and ergetamine tartrate. Dr. Matthews stated the latter drug has brought about the most dramatic results. Both have been put into use in recent years in the treatment of migraine headaches.

The society re-elected as president, Dr. C. C. Odom, of the Veterans' Administration Hospital of Augusta, Ga., and Dr. Joe Freed of the South Carolina State Hospital, Columbia.

Dr. William J. Burdashaw of Augusta, Ga., was elected secretary-treasurer to succeed Dr. V. Frankfurth, also of Augusta.

Participating in the discussions on migraine headaches were Dr. W. R. Nead, Florence; Dr. F. E. Zemp, Columbia; and Dr. Coyt Ham, superintendent, South Carolina State Hospital, Columbia.

University of Pennsylvania Medical Alumni will hold a dinner at the Convention of the American Medical Association in Chicago, Wednesday, June 23, 1948 at the Lake Shore Club, 850 Lake Shore Drive. On arrival in Chicago, alumni should contact Miss Frances R. Houston, Executive Secretary of the Medical Alumni Society, at the University of Pennsylvania registration booth.

COLUMBIA, S. C. — A new concern to service artificial limbs opened in April in Columbia and will soon be in a position to manufacture artificial limbs, L. W. Bishop, director of the Research, Planning and Development Board of South Carolina, announced.

The concern is a branch of the J. E. Hanger Company, of Atlanta, and will occupy offices and have repair facilities at 823 Main St., Columbia.

The Columbia office will carry a complete stock of goods and materials needed for repairs and will add personnel and equipment, as soon as possible, for the complete manufacture of artificial limbs.

J. E. Dillard, who will be in charge of the new branch and will direct the company's work in South Carolina, said he first contacted the American Legion in South Carolina for assistance in finding a suitable location and that the Legion directed him to the Research, Planning and Development Board. Decision to open a plant in South Carolina was reached when it was determined to provide quick service for residents of the State needing the company's services.

FOR SALE

Office equipment of the late Dr. Theodore Maddox, Union, S. C. For details, write Mrs. Theodore Maddox, Union, S. C.